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FIELD SERVICE NOTES  
FOR R.A.M.C. - - - -

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By MAJOR T. H. GOODWIN,  
R.A.M.C.

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FIELD SERVICE NOTES  
FOR R.A.M.C.  
INCORPORATING AMENDMENTS

BY

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## INTRODUCTION.

THE following notes are collected in book form in the hope that they may prove useful as a small reference pocket-book.

The greater portion of the subject matter has been extracted from text-books and journals, the references being given in the margin.

Some notes, such as the methods of packing field ambulance equipment, plans for establishing a dressing station, &c., are the outcome of personal experience on a camp of instruction, while other paragraphs (opposite which are marginal lines) are only intended as suggestions or opinions, and are in no way authoritative.

For convenience of reference the notes have been arranged as follows:—

Section I contains brief extracts from War Establishments in order that the composition of units, &c., may be quickly looked up.

Then follows the system of evacuation of the sick and wounded from front to base, commencing with the Regimental medical establishments, and passing through the various links of the chain to the hospital ships.

Notes on sanitation, supplies, billeting, horse management, and map reading follow, while the concluding Section (XIX) deals with the outlines of mobilization.

T. H. GOODWIN, *Major R.A.M.C.*

## FIELD SERVICE NOTES FOR R.A.M.C. AMENDMENTS.

It has been found advisable to issue a list of amendments to FIELD SERVICE NOTES FOR R.A.M.C. in order to ensure that all details as to personnel and equipment and also the marginal references to official publications may be in accordance with the latest editions of *War Establishments* and the *Field Service Manual*. It is hoped that the addition of these amendments to the present edition may render the manual absolutely up to date and of utility as a reference pocket-book.

T. H. GOODWIN.



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## SECTION I.

### WAR ESTABLISHMENTS.

*Infantry Battalion:* 30 officers, 977 other ranks (including attached), 62 horses and cobs—

16 stretcher-bearers (Regimental) with 8 stretchers. W.E., 1913, 1 N.C.O. and 8 men (Regimental) are trained in Part I, p. 142. sanitary duties. 1 officer R.A.M.C. is attached, also 1 corporal and 4 men R.A.M.C. for water duties. 1 Maltese cart (for medical equipment), 2 water carts.

*Cavalry Regiment:* 26 officers, 523 other ranks (including attached), 578 horses— W.E., 1913, Part I, p. 60.

12 men are trained in "first-aid." 1 N.C.O. and 6 men (Regimental) are trained in sanitary duties. P. 67, note (a). P. 67, note (d). 1 officer R.A.M.C. is attached, also 1 corporal and 2 men R.A.M.C. for water duties. 1 Maltese cart (for medical equipment), 1 water cart. The driver of the Maltese cart is one of the two medical officers' regimental orderlies.

*Field Artillery Brigade* (3 batteries): 23 officers, 772 other ranks (including attached)— W.E., 1913, Part I, p. 82.

1 officer R.A.M.C., 1 corporal and 4 men (attached to Headquarters). 1 Maltese cart (for medical equipment). 4 water carts (one with each battery and one for ammunition column). 1 N.C.O. and 8 men are trained in sanitary duties.

*Cavalry Brigade* (if not attached to a Division: W.E., Part I, p. 13, and Section 8, Table A. 104 officers, 2,180 other ranks)—

Headquarters, 3 cavalry regiments, 1 signal troop. 85 officers, 1,633 other ranks.

W.E., Part I, *Cavalry Division*—

p. 14, and

Section 8,

Table A.

Headquarters, 4 cavalry brigades, divisional troops (including 4 cavalry field ambulances). 439 officers, 8,830 other ranks.

W.E., Part I, *Infantry Brigade*—

p. 14, and

Section 8,

Table C.

Headquarters, 4 infantry battalions. 124 officers, 3,931 other ranks.

W.E., 1914, *A Division*—

Part I,

Section 8, C.

Headquarters, 3 infantry brigades, divisional troops (including 3 field ambulances). 585 officers, 7,488 other ranks.

## SECTION II.

### MEDICAL ESTABLISHMENTS WITH UNITS.

W.E.  
F.S.R., ii,  
p. 114.

(a) Officer and men R.A.M.C.

*Duties*:—

Disposal of daily sick. Supervision of sanitation. Duties in connection with water supply.

W.E.  
F.S.R., ii,  
p. 114.

(b) Regimental sanitary detachment.

(c) Regimental stretcher-bearers.

F.S.R., ii,  
p. 118.

*Duties in action*:—

(1) Afford first-aid.

(2) Carry cases unable to walk to nearest suitable cover.

(3) Erect cover and shelters for serious cases.

(4) Assist the medical units after an action.

*Notes*:—F.S.R., ii (reprint 1913), does not now state that the regimental medical establishments should direct cases able to walk to the divisional collecting station.

R.A.M.C.  
Training,  
p. 107.

“Carry cases to nearest suitable cover”—Such cases should be collected in one or more suitable



positions per battalion, thus forming "Regimental aid posts."

Immediate treatment should be confined to—

- (a) Arrest of hæmorrhage.
- (b) Application of first field dressing.
- (c) Relief of pain (*e.g.*, hypodermic "tabloid" of morphia under tongue).
- (d) Application of support to a broken limb.

Attach specification tally to each wounded man. On the tally note the following—

- (a) Nature of wound, *e.g.*, "gunshot," "sabre."
- (b) Situation of wound, *e.g.*, "right groin."
- (c) Special conditions, *e.g.*, hæmorrhage or fracture.
- (d) Number, name, rank, regiment.
- (e) Fact of an opiate having been given, and amount.
- (f) Application of a tourniquet.
- (g) Any special precautions required in transit.

*Red* tallies are used in the case of severe wounds or in which a tourniquet has been applied.

Cases of penetrating abdominal wounds, *severe* arterial bleeding, and extreme collapse should not be moved unless absolutely necessary.

R.A.M.C.  
Training,  
p. 112.

Information regarding wounded left under cover should be communicated to the inhabitants, and also, if possible, to the field ambulances.

It is very important that a regimental medical officer should keep a note-book and diary.

### SECTION III.

#### FIELD AMBULANCE.

Field ambulances are divisional troops under command of the A.D.M.S.

R.A.M.C.  
Training,  
p. 103.

A field ambulance consists of a "bearer" and a "tent" division, each divisible into A, B, and C subdivisions. One bearer and one tent subdivision

together form a section. 1 Lieutenant-Colonel in the tent division commands a unit.

W.E., p. 170. 9 medical officers.

1 quartermaster.

\*224 other ranks (including 42 A.S.C. attached).

66 horses (14 riding, 15 draught, 37 heavy draught).

### Personnel of One Section.

#### *Bearer Subdivision (A).*

1 officer.

1 serjeant.

1 bugler.

Wagon orderlies. { 1 corporal.  
3 privates (2 in B and C).  
36 stretcher-bearers.

—  
43 (42 in B and C).

#### *Tent Subdivision (B or C).*

2 officers.

4 serjeants (steward, nursing, dispenser, clerk).

2 corporals (cook, packstore keeper).

7 nursing orderlies.

1 clerk.

1 cook.

1 washerman.

3 supernumeraries.

—  
21

Attached— 1 serjeant, A.S.C.

14 men, „ (12 in B and C).

—  
15 (13 in B and C).

#### *Note—*

W.E., p. 170.  
*et seq.*

(a) In A section there are 4 wagon orderlies.

In B and C „ 3 „ „

(b) In the tent subdivision of A section a quartermaster takes the place of one serjeant and performs

---

\* 1 W.O., 13 N.C.O.s, 3 buglers, 165 rank and file—R.A.M.C.  
3 N.C.O.s, 39 rank and file (including 1 driver for cook's cart)—  
A.S.C.



steward's duties, and a serjeant-major takes the place of another serjeant and performs nursing duties.

(c) In the tent subdivision of A section there are one cycle orderly and one orderly for commanding officer in addition.

(d) There is 1 A.S.C. driver for "train transport" in A section, not included in these figures.

(e) One driver, A.S.C., for the cook's vehicle (g.s. wagon).

Summary—

<i>R.A.M.C.</i>		<i>A.S.C.</i>	
<i>Bearer Division.</i>	<i>Tent Division.</i>		
A 43	A 23	A 15	
B 42	B 21	B 13	
C 42	C 21	C 13	
—	—	—	
127	65	41	
		1 for cook's	
		— cart.	
		42	

$$127, 65, 42 = 234.$$

One storeman and 17 first reinforcement, not included in above figures, are left at base.

Ten 2-horsed ambulance wagons. (A 4, B 3, C 3.)

Each wagon carries 4 lying down or 12 sitting up, or 2 lying and 6 sitting.

On the line of march a field ambulance follows its own division, normally marches in rear of the brigade ammunition column, in front of the 2nd line transport when advancing, in rear of it when retiring.

It may be necessary to detail field ambulances to march with brigades.

Road space, 465 yards—A section, 175; B section, 135; C section, 135; interspaces, 20 = 465.

Camping space: 120 × 200 yards.

The organization of a field ambulance is very

*R.A.M.C.*  
Training,  
p. 104.  
Active Service  
Pocket-book,  
p. 539.  
*F.S.R.I.*,  
p. 52, note.  
*F.S.* Pocket-  
book, p. 35.  
*F.S.* Pocket-  
book, p. 39.

NOTE.—Time to pass a given point,  $4\frac{1}{2}$  minutes. (*F.S.M.*, p. 22.)

elastic, and its disposition must vary with the nature of the operations in progress.

R.A.M.C.  
Training,  
p. 104.

*Usual disposition in action—*

- (1) Bearer division (or one or two subdivisions).
- (2) 10 ambulance wagons and wagon orderlies.
- (3) Advanced dressing station or dressing station (if required).
- (4) Tent division less dressing station personnel.
- (5) Remainder of the unit.

Personnel of the A.S.C. not in charge of vehicles or horses remain with the baggage.

The bearer division collects wounded from the regimental medical service, and brings them to the ambulance wagons or the dressing station. The ambulance wagons are brought as far forward as possible.

The tent division provides one or more dressing stations, buildings being always utilized if available.

F.S.R., ii,  
p. 123.

The ambulance wagons should never be detached to such a distance as would prevent them rejoining their unit the same day.

The above is by no means intended to represent the invariable mode of disposition of the tent subdivisions. The disposal must vary according to circumstances, *e.g.*, one tent subdivision may be opened as a dressing station, one as a divisional collecting station, and the third kept in reserve, or one may be opened on the railway line to entrain cases as received from the front, or two tent subdivisions may be opened as dressing stations, &c.

### Principles.

(1) A dressing station should not be established until the action develops.

(2) A portion of the unit should always, if possible, be kept in reserve, no more tent subdivisions being opened than are actually required.

(3) Buildings should always be utilized if possible.

(4) Definite areas for operation should be allotted to each unit.

R.A.M.C.  
Training,  
pp. 106-109.

R.A.M.C.  
Training,  
p. 108.



(5) Every possible endeavour should be made to establish and maintain communication between the different portions of each unit and between the units and the A.D.M.S.

(6) All cases, except those which are likely to be fit for duty within 48 hours, should be sent to the clearing hospital.

(7) When on the line of march ambulance wagons may be detailed to accompany battalions. R.A.M.C. Training, p. 104.

(8) When in camp the sick of units will be received by a field medical unit notified in orders by the A.D.M.S.

(9) When in the neighbourhood of the enemy medical personnel will be required with the advanced guard. The amount of this personnel will necessarily vary with the size of the force; usually a bearer subdivision *less* ambulance wagons should prove sufficient, but it may be found advisable to detail a tent subdivision or part of a subdivision in addition. R.A.M.C. Training, p. 117.

Ambulance wagons are too conspicuous to be of service with an advanced guard.

The advanced guard of a brigade will probably be about  $1\frac{1}{2}$  miles ahead of the main body.

### The Dressing Station.

Normally consists of the personnel of one tent subdivision with a forage cart and a water cart.

The ambulance wagons usually rendezvous at the dressing station.

The dressing station should be—

(1) As far forward as is consistent with safety. It will probably not be found practicable to establish the dressing station at a nearer point than two to three miles from the firing line. R.A.M.C. Training, p. 113.

(2) Near (but not on) a road on the line of advance or retirement.

(3) Near water.

(4) In a protected situation.

(5) Not in proximity to an artillery position.

- (6) Not in, or close to, woods.
- (7) In buildings if available.
- (8) On a site of sufficient space to encamp the whole field ambulance.

### Organization of a Dressing Station.

A dressing station should be organized in sections as follows:—

#### (a) *Receiving, recording, and classifying.*

The work of this section is carried out by the two clerks (1 serjeant, 1 private).

An efficient shelter can be improvised by means of the tarpaulin cover rigged out from the side of the forage cart. The serjeant clerk sits under this shelter with the admission and discharge book, and enters particulars of each case as it is brought to the dressing station.

The second clerk (private) reads out the particulars to the serjeant from the patients' specification tallies.

The admission and discharge book should always be in the personal charge of the N.C.O. clerk; unless this is so the book (packed in the stationery box, which is loaded in the medical store wagon) will probably not be available when required, as the medical store wagon is not, in the first instance, brought up to the dressing station.

#### (b) *Nursing section.*

1 nursing serjeant (serjeant-major in A section),  
1 dispenser serjeant, 7 nursing orderlies.  
These improvise a shelter for a dispensary beside the water cart, erect temporary shelters for the wounded by means of blankets, ground sheets, hurdles, &c.



(c) *Kitchen section.*

1 corporal, cook.

1 private, cook.

These dig the kitchen, light fires, boil water, and make preparations for the provision of food and hot drinks.

(d) *Packstore section.*

1 serjeant, steward (the quartermaster in A section).

1 corporal, packstore keeper.

1 private, washerman.

These, with the 3 supernumeraries, first erect the Red Cross flag, and then mark out places for a packstore, mortuary, latrines, the latter being dug at once.

The supernumeraries, if not required at the time for signalling, may usefully be employed in getting supplies of grass, hay, fuel, &c.

The N.C.O. and men A.S.C. water, picket, and feed the horses.

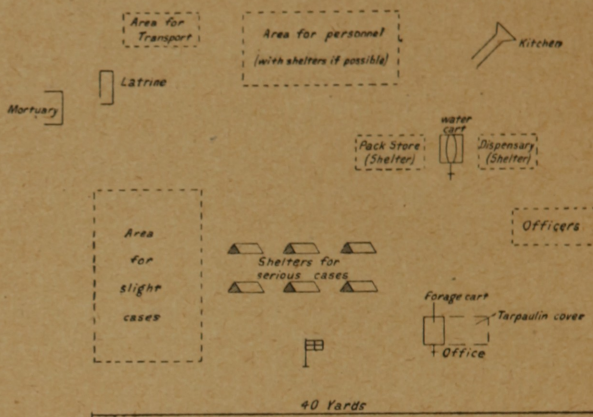
One of the officers will direct the positions for kitchens, latrines, mortuary, &c., and will also have areas marked out for wounded officers, slight cases, severe cases, and moribund cases.

In order to ensure the work being systematically and rapidly carried out every individual must know exactly the particular work which falls to his share.

Only urgent operations are performed at a dressing station. F.S.R., ii, p. 120.

Few operations except those required for hæmorrhage and tracheotomies should be undertaken in the field ambulances. "Gunshot Wounds," Major Spencer, R.A.M.C., pp. 59, 60.

## *Suggested Plan for Dressing Station.*



### *Opening a Tent Subdivision.*

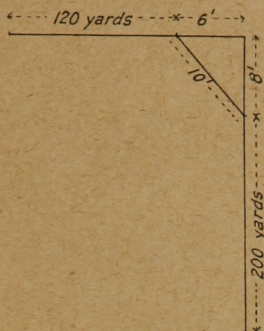
R.A.M.C.  
Training,  
pp. 250, 256.

Tents should only be pitched if no buildings are available. 4 bell tents and 1 operating tent.

8 men and 6 men are required respectively to pitch them, 1 N.C.O. to direct.

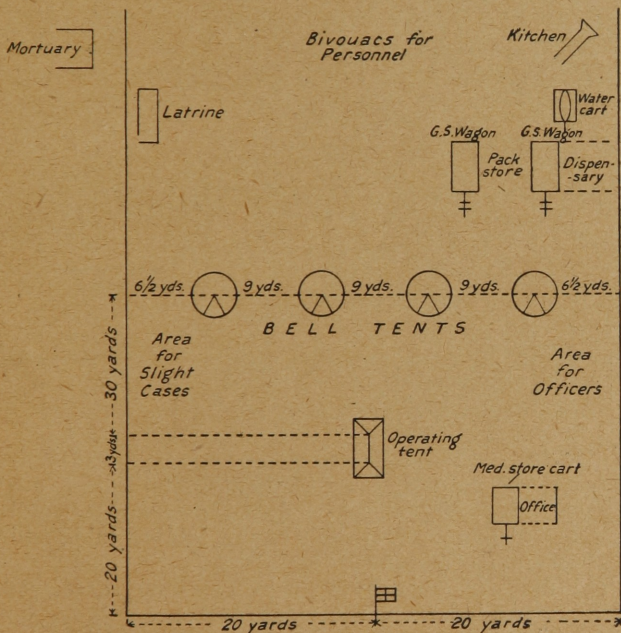
When the tents have been pitched the operating tent should be equipped and the bell tents furnished with paillasses, lanterns, urinals, spit cups, feeding utensils, &c.





Suggested Plan for a Tent Subdivision Encampment.

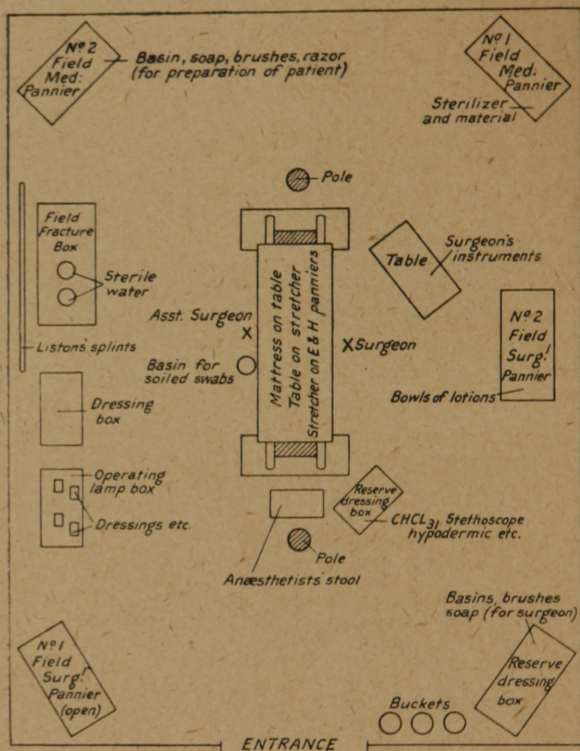
| TRANSPORT |



The above may frequently require to be modified according to size and nature of the ground.



## Suggested Plan for Equipping Operating Tent.



## Notes:—

- If the recently issued operating table is available this will be used in place of the E and H panniers, stretcher, and folding table and mattress.
- The irrigator and operating lamp are suspended from the ridge pole.
- The Primus stove and kettle are outside the tent, in shelter.

### Divisional Collecting Station.

A well-defined spot previously selected for the purpose and notified to the medical personnel concerned by the A.D. of M.S. of the division.

F.S.R., ii,  
p. 120.  
R.A.M.C.  
Training,  
pp. 105, 108.

This will probably be some 5 or 6 miles, or more, in rear of the fighting line.

It may be advisable to detail a tent subdivision for duty at this place.

Arrangements should be made for feeding and sheltering the wounded.

R.A.M.C.  
Training,  
p. 108.

*Note*:—"Notified to medical personnel concerned," e.g., notified in R.A.M.C. Operation Orders.

Cases able to walk will be directed to the divisional collecting station by the personnel of the field ambulances.

F.S.R., ii,  
p. 120.

### Transport.

2 general service wagons (2 horse)	}	To
1 medical store cart (2 horse)		each
1 water cart (2 horse)	}	section.
1 cook's cart (2 horse)		To
1 general service wagon (2 horse)	}	the field
"Train."		ambulance.

### LOADS.

#### (1) *Medical Store Cart.*

1 field fracture box.	F.S.M., p. 65.
1 pair field surgical panniers.	
1 medical companion and water bottle.	
1 reserve dressing box.	
6 surgical haversacks and water bottles.	
1 medical comfort pannier.	
10 g.s. blankets, 1 saddle blanket.	
10 ground sheets.	
1 securing strap.	
6 canvas buckets, in A Section (4 in B and C).	
1 filter.	
2 signal flags with poles.	
3 kettles (containing feeders, plates, pannikins, knives, basins, &c.). (May be carried in cook's cart.)	



1 portable operating table in case (A), shoes, horse, with nails; 4 pairs (in valise).

1 pannier H.

Intrenching tools (in pannier).

4 pendant flags and lanterns.

1 distinguishing flag.

6 stretchers.

Total weight—1,972 lb., 1,888 lb. in B, and C.

*Note:—*

(a) The signal flags, surgical haversacks and water bottles should be placed on top, so that they may be readily obtained when required.

(b) The stretchers should be packed at each side of the cart on top of the load.

*(2) Medical Store Wagon.*

1 pair field medical panniers.

1 medical companion and water bottle.

1 reserve dressing box.

1 pair reserve medical panniers (in "A" Section only).

1 surgical haversack and water bottle.

1 medical comfort pannier.

Dressing box.

Stationery box.

Operation table and mattress.

Panniers A—G.

50 blankets.

50 ground sheets.

5 securing straps.

2 canvas buckets.

30 paillasse cases.

1 filter.

2 signal flags.

2 camp stools.

2 nests of close stools.

1 portable stove.

1 camp table.

1 operating tent.

1 case hospital clothing.



1 bale compressed forage.  
6 stretchers.

Total weight—4,683½ lb. (A); 4,332 lb. (B);  
4,461 lb. (C).

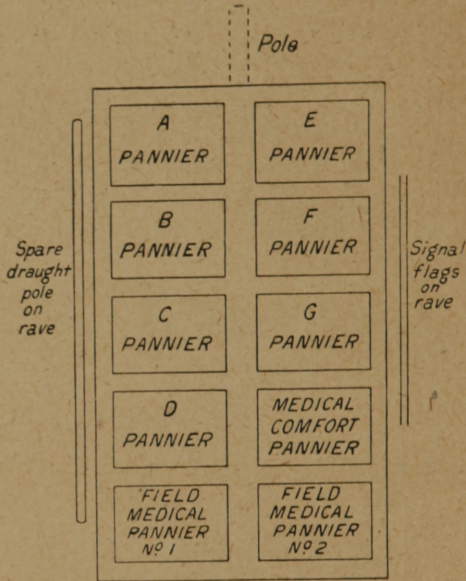
*Suggested Method for Packing Medical Store Wagon.*

(a) *Floor of Wagon.*



The articles are placed, as represented above, on the floor of the wagon. Small articles, such as canvas buckets, dressing box, &c., can be packed in the spaces between the packages.

(b) Packed on Top of (a).



Six stretchers, operating table and mattress are placed on top of the panniers lengthways from front to rear.

F.S.R., i,  
p. 67.

*Note*.—The height of vehicles loaded for embarkation must in no case exceed 8 feet 6 inches from the ground.

### *Baggage Wagon.*

F.S.M.,  
p. 72.

Officers' baggage.

2 cases of biscuit.

38 rations of corn (in A, 30 rations in B and C).

1 bale compressed forage.

Jam, lime-juice and rum.

2 cases of preserved meat.



- 1 grocery pannier.
- 1 cash box.
- 4 canvas buckets.
- 1 set butcher's implements.
- 1 lifting jack.
- 4 camp kettles.
- 1 spring balance.
- 1 repair pannier.
- 2 frying pans.
- 10 sets picket gear.
- 83 ground sheets (in A, 79 in B and C).
- 1 case of soap.
- 4 circular tents.
- Field veterinary chest (in A).
- 2 horse rugs.
- 1 bag shoemaker's tools.
- 1 box horse shoes.

Weight—3,192 lb. (A); 3,065½ lb. (B); 3,058½ lb. (C).

### Field Ambulance Medical Equipment.

<i>Articles</i>	<i>Where packed.</i>
6 medical companions ...	<div> <div>{</div> <div>3 in medical store carts.</div> <div>3 in medical store wagons.</div> </div>
21 surgical haversacks ...	<div> <div>{</div> <div>18 in medical store carts.</div> <div>3 in medical store wagons.</div> </div>
3 pairs field medical panniers	In medical store wagon.
1 reserve medical pannier (in A Section only) ...	In medical store wagon.
3 pairs field surgical panniers	In medical store carts.
3 field fracture boxes ...	In medical store carts.



<i>Articles.</i>	<i>Where packed.</i>
6 reserve dressing boxes ...	<div> <div>3 in medical store carts.</div> <div>3 in medical store wagons.</div> </div>

—o—

6 medical comfort panniers ...	<div> <div>3 in medical store carts.</div> <div>3 in medical store wagons.</div> </div>
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### **Field Ambulance Medical Equipment.**

*Index showing where each article is to be found.*

Medical companion = M.C. Packed in medical store cart and medical store wagon.

Field medical panniers (1 or 2) = F.M.P. Packed in medical store wagon.

Surgical haversack = S.H. Packed in medical store cart and medical store wagon.

Reserve medical pannier = R.M.P. Packed in medical store wagon in A Section.

Field surgical pannier (1 or 2) = F.S.P. Packed in medical store cart.

Reserve dressing box = R.D.B. Packed in medical store cart and medical store wagon.

*Index of articles packed in above equipment.*

#### **A.**

Ammon. carb., F.M.P.1.

Antipyrin, F.M.P.1.

Aspirator, F.S.P.1.

#### **B.**

Bandages, M.C., S.H., F.M.P.2, F.S.P.2, R.D.B.

Basins (dressing), F.M.P.2, F.S.P.2.

Boric powder, M.C., S.H., R.M.P., F.M.P.1.

Bougies, F.S.P.2.  
 Bovril, F.M.P.2, F.S.P.2.  
 Brandy, F.M.P.1, in 1898 pattern only.

**C.**

Calico, M.C., F.M.P.1, F.S.P.2.  
 Candles, M.C., S.H., F.M.P.1, F.S.P.1.  
 Carbolic, F.S.P.1, F.M.P.1, R.M.P.  
 Castor oil, F.M.P.1, R.M.P.  
 Catgut, F.M.P.1, F.S.P.1, R.M.P.  
 Catheters, M.C., F.M.P.1, F.S.P.2.  
 Chamois, R.M.P.1, F.S.P.2.  
 Chloral hydrate, F.M.P.1.  
 Chlorodyne, F.M.P.1, R.M.P.  
 Chloroform, M.C., F.M.P.1, F.S.P.1, R.M.P.  
 Christia tissue, M.C.  
 Corkscrew, F.M.P.1, F.S.P.1, R.M.P.  
 Corros. sublimate, F.M.P.1, F.S.P.1, R.M.P.  
 Cough tablets, F.M.P.1.

**D.**

Diarrhœa mixture, M.C., in 1898 pattern only.  
 Dover's powder, F.M.P.1.

**E.**

• Envelopes, F.M.P.1, R.M.P.  
 Eye-bath, F.S.P.1.  
 Eye-shades, F.S.P.1, R.M.F.

**F.**

Flannel, F.M.P.2.

**G.**

Gallic acid, F.M.P.1.  
 Gauze, M.C., S.H., F.M.P.2, F.S.P.2, R.D.B.

**H.**

Hemisine, R.M.P.  
 Hoffman's gouge, F.S.P.1.

Hone, F.M.P.1, F.S.P.2.

Housewife, M.C.

Hypodermic case, M.C., F.S.P.1, F.M.P.1, R.M.P.

# I.

Ice-bag, F.S.P.2, R.M.P.

Instruments (operation), F.S.P.1.

„ (surgeons), F.M.P.1.

Iodoform, M.C., F.S.P.1, F.M.P.1, R.M.P.

Irrigator, F.S.P.2.

# J.

Jaconet, F.M.P.2, F.S.P.2, R.D.B.

# L.

Labels, F.M.P.1, R.M.P.

Lantern (candle), F.M.P.1, F.S.P.1.

Lion forceps, F.S.P.1.

Lysol, F.M.P.1, R.M.P., R.D.B.

# M.

Mag. sulph., F.M.P.1, R.M.P.

Measuring tape, F.S.P.1.

Medicine cup and mortar, M.C., F.M.P.1.

Minim measure, M.C., F.M.P.1, R.M.P.

Mirror, F.M.P.1.

Morphia, M.C., S.H., R.M.P.

Mustard leaves, F.M.P.1, R.M.P.

# N.

Nail-brushes, F.M.P.2, F.S.P.1, R.D.B., R.M.P.

Needles, M.C., S.H., F.S.P.1., R.M.P.

Note-book, F.M.P.1, R.M.P.

# O.

Ophthalmic case, F.M.P.1, R.M.P.

Ex. opii liq., F.M.P.1.

Tr. opii, M.C.



**P.**

Packing needles, F.M.P.1, R.M.P.  
 Pack-thread, F.M.P.1, R.M.P.  
 Paper, F.M.P.1, R.M.P.  
 Paraffin, M.C., F.M.P.1, R.M.P.  
 Pencils, F.M.P.1, F.S.P.1, R.M.P.  
 Phenacetin, F.M.P.1.  
 Pins, S.H., F.M.P.2, F.S.P.1, R.M.P.  
 Plaster, M.C., S.H., F.M.P.2, F.S.P.1, R.M.P.  
 Pot. brom., F.M.P.1, R.M.P.  
 Pot. permang., F.M.P.1, F.S.P.1.  
 Prescription-book, F.M.P.2.

**Q.**

Quinine, F.M.P.1.

**R.**

Razor, F.S.P.1.

**S.**

Saline infusion, F.S.P.1.  
 Sal volatile, M.C., S.H., F.M.P.1, R.M.P.  
 Scissors, M.C., S.H., F.M.P.1, F.S.P.1, R.M.P.  
 Screwdriver, F.M.P.1, R.M.P.  
 Shears, F.M.P.2, F.S.P.2.  
 Sheets (old), F.S.P.2.  
 Silk, M.C., S.H., F.M.P.1, F.S.P.1, R.D.B.  
 Silkworm gut, F.S.P.1, R.D.B.  
 Silver nitrate, F.M.P.1, R.M.P.  
 Soap, F.M.P.1, F.S.P.1, R.M.P., R.D.B.  
 Soda, F.S.P.1, F.M.P.1.  
 Sod. bicarb., F.M.P.1, R.M.P.  
 Sod. salicyl., F.M.P.1, R.M.P.  
 Spencer Wells forceps, S.H., M.C., F.M.P.1,  
 F.S.P.1.  
 Spirit, F.S.P.1, F.M.P.1.  
 Splints, S.H.  
 Sterilizer, F.S.P.1, F.M.P.1.  
 Stethoscope, F.M.P.1, F.S.P.1.

Stomach-tube, F.S.P.1.  
 Strop, F.S.P.2.  
 Suspensory bandage, M.C.  
 Syringe, F.M.P.1, F.S.P.1.

## T.

Tablets and pills, M.C., F.M.P.1, R.M.P.  
 Tallies, S.H., F.M.P.1, F.S.P.1, R.M.P.  
 Tape, M.C., S.H., F.M.P.2, F.S.P.2, R.M.P.  
 Test-tubes, F.M.P.1, R.M.P.  
 Thermometer, F.M.P.1, F.S.P.1, R.M.P.  
 Thread, S.H.  
 Tin opener, F.M.P.2, R.D.B.  
 Tongue depressor, F.M.P.1, R.M.P.  
 Tooth instruments, F.M.P.1.  
 Tourniquets, M.C., S.H., F.M.P.1, F.S.P.1.  
 Tubing, F.M.P.1, F.S.P.1, R.M.P.

## W.

Warmer (food), F.M.P.2, F.S.P.2.  
 Waterproof cloth, F.S.P.2, R.M.P.  
 Wool, M.C., S.H., F.M.P.2, F.S.P.2, R.D.B.

## Z.

Zinc. sulph., F.M.P.1, R.M.P.

## Contents of Field Ambulance Panniers (A-H).

Basins, enamelled,  $7\frac{1}{4}$  in., H.  
 „ soup, 6 in., A.  
 „ washing, 11 in., B.C.  
 „  $7\frac{1}{4}$  in., C.  
 „ 14 in., F.  
 Brushes, nail, C.  
 „ scrubbing, B.F.  
 „ shaving, C.  
 „ washing, F.  
 „ whitewash, F.



Cans, oil, E.H.  
 Carpenter's tools, F.  
 Cases, bolster, D.  
 Chisel, ripping, B.  
 Clipper, hair, C.H.  
 Comb, C.  
 Cotton waste, E.  
 Cups, spitting, G.  
  
 Feeders, enamelled, A.  
 Flags, H.  
 Flannel, D.  
 Forks, dinner, A.H.  
 „ flesh, B.  
 Funnel, A.  
  
 Hammer, claw, B.F.  
 Hooks, bill, F.  
 „ reaping, F.  
  
 Kettle, enamelled, B.  
 Knives, dinner, A.B.H.  
 Ladles, B.  
 Lamps, hurricane, E.  
 „ operating, packed separately.  
 Lanterns, bull's-eye, E.H.  
 Lids, basin, A.  
 „ mugs, A.  
 Lines, clothes, F.  
  
 Machine, mincing, B.  
  
 Needles, D.  
  
 Pannikins, A.  
 Pans, bed, G.  
 Plates, A.  
 Pots, tea, B.  
  
 Saucepans, B.  
 Scissors, C.H.  
 Scoops, flour, B.



Sponges, C.  
 Spoons, A.H.  
 Stoves, Primus, E.  
  
 Tapes, measuring 100 ft., D.  
 Thread, D.  
 Tow, C.  
 Towels, hospital, D.H.  
     ,, operating, D.H.  
 Urinals, G.  
 Warmer, stomach, G.

### Notes on Equipment.

*Operation aprons*, in clothing chest, 6 to each section  
     Field Ambulance, 3 to each section Cavalry  
     Field Ambulance.

*Stretchers*, 76 per field ambulance (A28, B24, C24)—

4 in each ambulance wagon	=	40
6 in each medical store cart	=	18
6 in each medical store wagon	=	18
		—
		76

*Blankets*, 260 per field ambulance (A76, B72, C72)—

8 in each ambulance wagon	=	80
10 in each medical store cart	=	30
50 in each medical store wagon	=	150
		—
		260

*Ground sheets*, 362 per field ambulance—

10 in each medical store cart	=	30
50 in each medical store wagon	=	150
62 in baggage wagon, A section	=	62
60 in baggage wagon, B section	=	60
60 in baggage wagon, C Section	=	60
		—
		362

*Towels*, 30 hospital and 6 operating to each section.

## Entraining.

19 compartments.

7 cattle trucks.

11 vehicle trucks.

2 brake vans.

Half a field ambulance forms a train load.

6 officers or 8 men to each compartment.

5-8 compartments in a coach.

1 passenger coach measures 41 feet.

1 cattle truck measures 24 feet.

1 open truck measures 21 feet.

F.S. Pocket  
book, p. 130.

F.S. Pocket-  
book, p. 135.

## SECTION IV. VEHICLES.

(a) *Ambulance wagon, mark V\**. 2-horsed—

Carries 4 lying or 12 sitting, or 2 lying and 4 sitting.

Weight, 2,571 lb. (about 23 cwt.) equipped.

Weight, 4,867 lb. (about 2 tons) fully loaded.

R.A.M.C.  
Training,  
p. 162.

(b) *Ambulance wagon, mark VI*. 2-horsed—

Carries 4 lying or 12 sitting, or 2 lying and 4 sitting.

Weight, 2,689 lb. (about 24 cwt.) equipped.

Weight, 4,985 lb. fully loaded.

R.A.M.C.  
Training,  
p. 163.

(c) *Light ambulance wagon, mark I*. 2-horsed—

Carries 2 lying or 8 sitting.

Weight, 1,245 lb. (about 11 cwt.) equipped.

Weight, 2,789 lb. fully loaded.

R.A.M.C.  
Training,  
p. 164.

(d) *General service wagon*. 2-horsed—

Weight, 1,985 lb. (about 17 $\frac{3}{4}$  cwt.) equipped.

Maximum load, 3,000 lb.

Total weight, fully loaded, about 44 cwt.

Carries 9 sitting or 3 lying down (without stretchers).

F.S. Pocket-  
book, pp. 121,  
124.

(e) *Forage cart*. 2-horsed—

(Medical store cart in Field Ambulance.)

Weight, 920 lb. (about 8 $\frac{1}{4}$  cwt.) equipped.

Maximum load, 1,500 lb.

F.S. Pocket-  
book, p. 124.



(f) *Maltese cart*. 1-horse (carries entrenching tools)—  
Weight, 784 lb. equipped.

(g) *Filter water cart*. 2-horsed—  
Weight, 1,644 lb.

Weight of water, 1,180 lb. (118 gallons).

Weight of water cart filled, 2,824 lb. (fitted with filtering apparatus).

(h) *3-ton motor lorry*—

Carries 16 patients sitting, or 8 lying down (without stretchers).

(k) *30-cwt. motor lorry*—

Carries 8 sitting, or 3 lying and 2 sitting.

(l) *Motor 'bus*—

Carries sitting patients = 70-80 per cent of its licensed capacity.

If fitted with special apparatus carries 4 lying and 11 sitting.

#### *Auxiliary Transport.*

(1) Stretcher-bearers from civil population.

(2) Empty g.s. wagons.

(3) Motor lorries (mechanical transport of supply columns).

(4) Local vehicles, e.g., country carts.

(5) Field railways.

(6) Permanent railways.

(7) Waterways, e.g., barges on canals.

(8) Vehicles, &c., of voluntary aid detachments.

*Notes.*—If possible motor vehicles with solid tyres should not carry sitting-up cases faster than 10-12 miles per hour, nor lying-down cases faster than walking pace in the case of horsed vehicles.

When taking over g.s. wagons or country carts thoroughly overhaul them, see that the brakes are in working order, and that the axles and lynch pins are sound.

If possible fit with covers.

Place patients who are seriously wounded or ill in heavy vehicles.

F.S.M.,  
pp. 48, 49.

R.A.M.C.  
Training,  
p. 176.

R.A.M.C.  
Training,  
p. 176.

R.A.M.C.  
Training,  
p. 176.



Provide hay, straw, or bracken tied in bundles or filled into sacks.

If stretchers are used lash or strap them in position.

## SECTION V.

### FIELD AMBULANCE SIGNALS.

#### *Signal.*

(1) "A," "B," "C," as in semaphore.

(2) 2 blasts of whistle followed by section signal.

(3) 1 blast of whistle.

(4) Arm swung from rear to front below shoulder.

(5) Arm circled above the head.

(6) Arm raised to full extent above the head.

(7) Horse turned in required direction, and arm extended forward in line with shoulder.

(8) Circular movement of extended arm in line with shoulder in required direction.

#### *To indicate.*

(1) "A," "B," or "C" section.

(2) The section signalled only to carry out the movement required. Orders to be given by O.C. section.

(3) The complete unit to carry out the movement required. Orders to be given by O.C. field ambulance.

(4) Advance.

(5) Retire (if arm has been circled over left shoulder retire to left-about, if over right shoulder to right-about).

(6) Halt.

(7) Incline.

(8) Wheel.

(9) One blast of whistle—arm extended above the head and then lowered to the right in line with the shoulder, after a pause the arm is circled to the front.

(10) Two blasts of whistle—signal for “A” followed by signal No. 9, pause, 2 blasts of whistle signal for “B,” &c.

(11) Two blasts of whistle—signal for “A,” signal to advance (No. 4), pause, two blasts of whistle, signal for “B,” signal for advance, followed by signal for right-wheel and (when in position behind “A” section) signal for left-wheel. Signals for “C” section as for “B.”

(12) One blast of whistle—Cuts 1 and 2, and then point to the front. (Cavalry sword exercises.)

(9) To form column of route from field ambulance in line.

(R.A.M.C. personnel will form fours, right, wheel to the left, and move off, the transport will follow in a single line.)

(10) To form column of route by sections from field ambulance in line.

(Each section in turn forms fours, right, wheels to the left and moves off, followed by its own transport.)

(11) To form field ambulance in column of sections.

“A” section advances. “B” section advances, forms to the right, moves on, and then forms to the left and moves on in rear of “A” section.

“C” section advances, forms to the right and moves on until the front rank covers the left file of “B” section, when it forms to the left and moves on.

(12) To form field ambulance in line from any formation.

(a) *From column of route:—*



On the left form company.

(b) *From column of route by sections:—*

“A” section forms on the left.

“B” section left inclines and leads on until the leading file is two paces in rear and to the left of the left flank of “A” section, when it right inclines and then forms on the left.

“C” section performs the same movements and forms on the left of “B.”

(c) *From column:—*

On the left form company.

## ARMY FORMS AND BOOKS.

For list of Army forms and books, see Appendix 33, F.S.M.

### Camps.

Requisition for Ordnance Stores on A.F., G. 997.

Requisition for Camp Equipment on A.F., G. 968.

(Scale, Appendix vii, Equipment Regulations.)

Requisition for Transport on A.F., F. 756.

Requisition for Supplies on A.B., 188.

Indent accounting for Rations A.F., F. 776.

*The following books should be carefully kept when on Service—*

(1) War diary. (See F.S.R., ii, p. 174.)

(2) A.B. 27 (a). Admissions and discharges.

(3) A.B. 182. Pack Store check book.

(4) A.B. 191. Receipt Book, Patients' Valuables.



When large sums of money are taken they should be paid over to an Accountant on A.F., G. 1080.

Arms and equipment of patients should be handed in to Ordnance on A.F., G. 1033, detail being noted so that articles can be traced.

## SECTION VI.

### CAVALRY FIELD AMBULANCE.

2 sections, A and B; each section consists of 1 bearer and 1 tent subdivision.

Tent division accommodates 50 patients.

#### Personnel of 1 Section.

##### *Bearer Subdivision—*

W.E., p. 166.    1 officer.  
                   1 bugler.  
                   2 corporals wagon orderlies.  
                   6 privates (2 to each light and 1 to each heavy wagon.)  
                   12 stretcher-bearers.  
                   —  
                   22

##### *Tent Subdivision—*

2 officers.  
 1 W.O. (in "A" section).  
 3 serjeants.  
 (+ 1 supernumerary in "B.")  
 1 corporal, cook.  
 1 corporal, packstore keeper.  
 1 corporal, clerk.  
 5 nursing privates.  
 1 cook private.  
 1 washerman private.  
 —  
 16

A.S.C.—

1 N.C.O.

20 rank and file.

*Total*:—

R.A.M.C.	{	6 officers.
		1 W.O.
		7 N.C.O.s.
		2 buglers.
		60 rank and file.
A.S.C.	{	2 N.C.O.s.
		46 rank and file.

---

124

78 horses (66 draught, 12 riding).

7 storemen and 1st reinforcement left at base (not included in above).

*Ambulance Transport*—

6 light 2-horsed ambulance wagons (carrying 2 lying or 8 sitting).

4 heavy 6-horsed ambulance wagons (carrying 4 lying or 12 sitting, or 2 lying and 6 sitting).

*Transport*—

2 forage carts (baggage and supply carts).

2 g.s. wagons. (Medical store wagons.)

1 cook's wagon.

2 water carts.

2 bicycles for inter-communication.

1 g.s. wagon for stores, &amp;c.

W.E., I,  
p. 169.*Allotment*—

4 cavalry field ambulances to a cavalry division.

1 cavalry field ambulance to M.I. brigade.

Road space: 275 yards	{	A section, 127
		B section, 127
		Interval, 21
		<hr/> 275

F.S. Pocket-  
book, p. 35.

Camp space: 180 × 80 yards.

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NOTE.—Time in passing a given point, a little over 2½ minutes.  
(F.S.M., p. 16.)



*Entraining—*

F.S. Pocket-  
book, pp. 130,  
131.

- 14 compartments.
- 11 cattle trucks.
- 16 vehicle trucks.
- 2 brake vans.
- (1 train load.)

**Work of a Cavalry Field Ambulance.**

(1) The light ambulance wagons should be distributed with the units and act as "feeders" to the heavy ambulance wagons.

(2) A "collecting post" is formed where the ambulance takes over the wounded.

R.A.M.C.  
Training,  
p. 122.

When the collecting post is moved to another position the regimental medical officers should be so informed. (The regimental M.O. should, as a rule, be with the O.C. the regiment.)

The collecting post may consist of a section of a cavalry field ambulance if there are heavy casualties. Usually, however, it will consist of 1 M.O., 1 or more stretcher squads, a heavy ambulance wagon, and a few N.C.O.s. and men of the tent division.

(3) A dressing station may, or may not, be formed; it will frequently be found that it is impracticable to do so.

(4) Every effort should be made to maintain touch with the units.

(5) A least one section of a cavalry field ambulance should be kept in readiness to follow up with pursuing cavalry if necessary.

*Medical Equipment.*

F.S.M., p. 56,  
1, &c., and  
App. IV.

- 2 field fracture boxes.
- 2 pairs field medical panniers.
- 2 pairs field surgical panniers.
- 2 medical companions and water bottles.
- 4 reserve dressing boxes.
- 8 surgical haversacks and water bottles.



2 medical comfort panniers.

All the medical equipment and the medical comfort panniers are packed in the medical store wagon.

## LOADS.

### *Medical Store Wagon.*

#### *Medical Equipment—*

- 1 field fracture box.
- 1 pair field medical panniers.
- 1 pair field surgical panniers.
- 2 medical companions and water bottles.
- 2 reserve dressing boxes.
- 4 surgical haversacks and water bottles.

F.S.M., p. 56.

#### *Supplies—*

- 1 medical comfort pannier.
- 4 rations of corn.
- 1 bale compressed forage.

#### *Ordnance Equipment—*

- 30 blankets.
  - 30 ground sheets.
  - 3 securing straps.
  - 1 stationery box.
  - 1 dressing box.
  - 2 canvas buckets.
  - 15 paillassé cases.
  - 1 filter.
  - Flags—2 signal, 4 pendant, 1 distinguishing.
  - Operation table, mattress, and strap.
  - Panniers, 1—5.
  - 2 folding stools.
  - 1 nest of close stools.
  - 6 stretchers.
  - 1 portable stove.
  - Tents—1 circular, 1 operation.
  - 1 case of hospital clothing and boots
- Weight—4,510 lb.

*Baggage and Supply Cart.*

F.S.M., p. 60.

- Officers' baggage.
- Biscuit, jam, lime-juice, rum, preserved meat.
- 12 rations of corn.
- 1 grocery pannier.
- 1 cash box.
- 6 canvas buckets.
- 1 set butcher's implements.
- 1 lifting jack.
- 5 camp kettles.
- 1 spring balance.
- 1 G.S. pannier with A.S.C. material.
- 1 pannier with intrenching tools.
- 1 frying pan.
- 10 sets picket gear.
- 57 ground sheets.
- 1 case soap.
- 1 circular tent.
- 1 veterinary field chest.
- 2 horse rugs.
- 1 bag shoemaker's tools.

Weight—2,125 lb.

*Contents of Cavalry Field Ambulance Panniers, 1-5.*F.S.M.  
App. IV.

- Basins, soup, 6 in., 1.
- „ washing, 11 in., 2, 3.
- „ 7 $\frac{1}{4}$  in., 3.
- „ 14 in., 5.
- Brushes, nail, 3.
- „ shaving, 3.
- „ scrubbing, 5.
- „ washing, 5.
- „ whitewash, 5.

- Cans, oil, 4.
- Carpenter's tools, 5.
- Cases, bolster, 3.
- Chisel, ripping, 2.
- Combs, 3.



Cotton waste, 4.  
 Clippers, hair, 3.  
 Cups, spitting, 5.

Flags, 3.  
 Flannel, 3.  
 Forks, dinner, 1.  
 „ flesh, 2.  
 Funnels, 1.

Hammer, claw, 2.  
 Hooks, bill, 5.  
 „ reaping, 5.

Kettle, 2.  
 Knives, dinner, 1.

Ladles, 2.  
 Lamps, hurricane, 4.  
 „ operating, 4.  
 Lanterns, 4.  
 Lids, basins, 1.  
 „ mugs, 1.  
 Lines, clothes, 5.

Machine, mincing, 2.

Needles, 3.

Pannikins, 1.  
 Pans, bed, 5.  
 Plates, dinner, 1.  
 Pots, tea, 2.

Saucepans, 2.  
 Scissors, 3.  
 Scoops, flour, 2.  
 Sponges, bath, 3.  
 Spoons, table, 1.  
 Stoves, Primus, 4.



Tapes, measuring, 4.  
 Thread, 3.  
 Tow, carbolized, 3.  
 Towels, 3.  
 „ operation, 3.  
 Urinals, 5.  
 Warmers, stomach, 3.

*In a Cavalry Field Ambulance.*

*Blankets—*

30 in each medical store wagon	=	60
8 in each heavy ambulance wagon	=	32
4 in each light ambulance wagon	=	24

—  
 Total 116

*Ground Sheets—*

35 in each baggage cart	=	70
30 in each medical store wagon.		

—  
 Total 130

*Stretchers—*

6 in each medical store wagon	=	12
2 in each light ambulance wagon	=	12
4 in each heavy ambulance wagon	=	16

—  
 Total 40

## SECTION VII.

### CLEARING HOSPITAL.

R.A.M.C.  
 Training,  
 p. 125.  
 F.S.R., ii,  
 p. 122.

1 clearing hospital per division.  
 The point to which the collecting zone converges, and from which the evacuating and distributing zones diverge.

Normally located at an advanced base, and pushed up thence to the field ambulances to relieve them and pass the sick on to the stationary hospitals.

Equipped for 200 sick (nominally), may frequently have to be expanded to accommodate a much larger number.

R.A.M.C.  
 Training,  
 p. 125.

Equipment and supplies—50,000 lb. ( $22\frac{1}{3}$  tons).

*Tentage*:—31 marquees (512 lb. each) and 20 bell tents.

17 g.s. wagons are required for removal, or 8 3-ton motor-lorries.

Buildings should be utilized whenever possible.

Transport arranged for by the Director of Trans- F.S.R., ii, port and the I.G.C., co-ordinated at Headquarters P. 123. by the Q.M.G.'s branch.

Camp space—205 × 190 yards.

F.S.M., p. 24

### Personnel.

7 medical officers.

W.E., p. 199.

1 quartermaster.

1 W.O.

8 N.C.O.s.	{	2 nursing.
		1 steward.
		1 dispenser.
		1 cook.
		1 packstore keeper.
		1 clerk.
		1 general duty.

1 bugler.

7 corporals	{	1 dispenser.
		1 cook.
		1 clerk.
		4 general duty.
	{	1 steward's stores.
		2 cooks.
		1 packstore.
		1 clerk.
60 privates	{	31 ward duties (17 nursing section,
		14 general duty section).
		2 washermen.
		8 batmen.
		14 general duties.

*Entraining*:—2 coaches for personnel.  
2 cattle trucks for horses.  
3 trucks for equipment.

F.S.M., p. 24.



*Medical Equipment—*

- 4 medical companions and water bottles.
- 8 surgical haversacks and water bottles.
- 2 pairs field medical panniers.
- 2 pairs field surgical panniers.
- 2 pairs reserve medical panniers.
- 2 field fracture boxes.
- 10 reserve dressing boxes.

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8 medical comfort panniers.

For clothing, &c., see F.S. Manual, Appendix xxviii.

*Contents of Clearing and Stationary Hospital.  
Panniers, 1—5.*

F.S.M.,  
App. VI.

- Basins, 14 in., 1, 2, 4.
- „ 6 in., 1, 2, 4.
- „  $7\frac{1}{4}$  in.  $\times$   $5\frac{3}{4}$  in., 3.
- Brushes, nail, 1, 2, 3.
- „ scrubbing, 1.
- „ shaving, 1.
- „ washing, 2, 4, 5.
- „ whitewash, 4, 5.
- Buckets, 1, 2, 3, 4, 5.

- Chisel, ripping, 4.
- Clippers, hair, 3.
- Combs, 1.
- Corkscrews, 1, 2, 3, 4.
- Cups, canteen, 1, 2, 4.

- Feeders, 1, 2.
- Flannel, 2.
- Forks, dinner, 1, 2.
- „ flesh, 4.

Hammer, claw, 4.

Inhaler, 3.

Jugs, 2.

Knives, dinner, 1, 2.

„ tin opening, 1, 2, 4.

Ladles, 4.

Lids, basin, 1, 2, 4.

„ mug, 1, 2, 4.

Lines, clothes, 5.

Needles, 5.

Plates, dinner, 1, 2, 4.

Pots, tea, 2.

Scissors, hair cutting, 3.

„ nail, 1, 2.

Scoops, flour, 4.

Shapes, pudding, 4.

Skewers, 4.

Sponges, 1.

Spoons, table, 1, 2, 4.

Squeezers, lemon, 4.

Stoves, Primus, 2.

Tapes, measuring, 3.

Thread, 5.

Tow, 3.

Twine, 1, 3, 4, 5.

Warmer, stomach, 1.

No. 1 pannier—Ward stores.

„ 2 „ —Stores for N.C.O.'s duty tent.

„ 3 „ —Dispensary stores.

„ 4 „ —Kitchen stores.

„ 5 „ —Laundry stores.



## Functions of a Clearing Hospital.

This unit only acts as a "hospital" if it is unable to pass its sick and wounded down the L. of C., an eventuality every effort must be made to avoid.

In European warfare buildings will probably always be available, and the tentage of the clearing hospital will probably be left at the advanced base, while the clearing hospital itself will usually be operating from the vicinity of the railhead, which, in modern warfare, will probably be within 10 to 12 miles of the area of combat.

The clearing hospital should, in order to carry out its functions, be within 8 to 10 miles of the field ambulances, when the fight commences; a detachment should, as quickly as possible, push forwards, establish touch with the field ambulances, and relieve them of their wounded, passing these back to the Lines of Communication.

The personnel of a clearing hospital should be divided into a main body and rest station parties, and it may frequently be found necessary to organize a convoy party in addition.

Suggested composition of a detachment, or rest station party:—

- 1 officer.
- 1 N.C.O. (general duty serjeant or corporal).
- 1 cook.
- 2 nursing orderlies.
- 2 general duty orderlies.

One such detachment should always reach the "refilling point" before the daily arrival of the motor lorries of the supply column in order to take over the sick and wounded from the field ambulances, and load them into the mechanical transport vehicles of the supply column, which, on transferring their supplies to the "train," will return to the next day's railhead.

It is essential that the O.C. the clearing hospital should work in collaboration with the O.C. the supply column, and should keep himself accurately informed as to any alterations of railhead.

## SECTION VIII. STATIONARY HOSPITAL.

Two per division.

F.S.M., p. 24

Equipped for 200 sick, must be prepared to expand for a very much larger number.

Camping space  $240 \times 190$  yards, but buildings should always be utilized if possible.

Staff as for a clearing hospital + 9 privates for ward duties.

Situated at selected points on L. of C., e.g., advanced base, &c.

One or more should be at or in front of advanced base for reception and treatment of slight cases. F.S.R., ii, p. 124.

## GENERAL HOSPITAL.

520 beds, including 20 for officers, but much further expansion may be necessary.

### Personnel.

20 medical officers.

1 quartermaster.

2 warrant officers.

141 N.C.O.s and men.

43 Q.A.I.M.N.S.

Buildings should always be utilized if possible.

Camping space,  $550 \times 400$  yards.

Two per division.

Transport provided under orders of I.G.C.

### *Site—*

Accessible by road or rail.

Sufficiently far from activity to insure quietude.

Siding and platform for ambulance train.

The vicinity of a town is an advantage.

Convalescent depôts should be established in connection.

Each general hospital should include:—

1 N.C.O. (or more) qualified as high-class cook.

1 attendant in skiagraphy.

1 laboratory attendant.

1 operating-room attendant.

R.A.M.C.  
Training,  
p. 133.

R.O./338.

Dated  
3.10.11.



## AMBULANCE TRAINS.

F.S.M.,  
p. 28.  
W.E., p. 202.

- (1) *Permanent* ambulance trains.  
Well-equipped rolling hospitals—  
2 medical officers.  
3 N.C.O.s.  
42 rank and file, R.A.M.C.  
Conveys 396 lying-down cases.

R.A.M.C.  
Training,  
pp. 181, 241.

- (2) *Temporary* ambulance trains.  
Ordinary vehicles fitted with Zavodovski, or other, apparatus.

- (3) *Improvvised* ambulance trains.

*Notes:*—Rest stations should be established at entraining and detraining stations.

An ordinary passenger coach has six compartments.

Six slight cases can be allotted to each compartment, but it is preferable only to allot five, as three men can then sleep at a time.

Two serious cases to each compartment.

Kits should be carried in a separate carriage.

Corridor communication is a very great advantage.

### *Convalescent Dépôt.*

R.A.M.C.  
Training,  
p. 133.

Established in connection with selected general hospitals, but distinct from the latter in their organization.

W.E., p. 202.

Their function is to relieve pressure on the hospitals.

## Hospital Ships.

- One per division—  
220 beds (including 20 for officers).  
5 medical officers.  
1 quartermaster.  
1 warrant officer.  
5 N.C.O.s.  
32 rank and file.  
9 Q.A.I.M.N.S.

W.E., i,  
p. 210.  
F.S.M.,  
p. 29.

*Advanced Dépôt of Medical Stores.*

- 1 officer.
- 5 other ranks.
- 2 g.s. wagons carry equipment.
- One at advanced base, and one at railhead.
- One for every two divisions.
- Transport provided under orders of I.G.C.

W.E., p. 204.  
F.S.M.,  
p. 30.

*Base Dépôt of Medical Stores.*

- One for every two divisions.
- 1 officer.
- 1 quartermaster.
- 8 other ranks.
- 19 g.s. wagons required for transport.

W.E., p. 211.  
F.S.M.,  
p. 31.

**SECTION IX.****EVACUATION OF SICK AND WOUNDED.**

- |                       |   |   |                                  |
|-----------------------|---|---|----------------------------------|
| (1) Collecting zone   | { | Medical service with regi-<br>mental units. |                                  |
|                       |   | Field ambulances.                           |                                  |
|                       |   | Cavalry field ambulances.                   |                                  |
| (2) Evacuating zone   | { | Clearing hospitals.                         | R.A.M.C.<br>Training,<br>p. 100. |
|                       |   | Ambulance trains.                           |                                  |
|                       |   | Stationary hospitals.                       |                                  |
| (3) Distributing zone | { | General hospitals.                          |                                  |
|                       |   | Hospital ships.                             |                                  |
|                       |   | Military hospitals in Eng-<br>land.         |                                  |

The collecting zone must remain intact and complete.

**AVERAGES.**

Proportion of killed to wounded = 1:4. (The mortality will probably be considerably higher with the new pointed bullet.)

Of the wounded—

- 20 per cent. are able to walk.
- 60 per cent. require sitting accommodation.

R.A.M.C.  
Training,  
p. 128.



15 per cent. require lying-down accommodation.

5 per cent. are unfit to be moved.

F.S.R., ii,  
p. 123.  
F.S.R., ii,  
p. 123.

Average battle, 5 to 20 per cent. casualties.

Average daily inflow of sick, 0·3 per cent., i.e., about 60 men per diem per division.

50 per cent. of these require treatment for 4 to 5 days only, and should seldom be evacuated farther back than the advanced base.

30 per cent. require treatment for 3 to 4 weeks in L. of C. units.

20 per cent. require evacuation to home territory.

R.A.M.C.  
Training,  
p. 128.

Cron's (Austrian) estimate of probable number of *total* casualties after any battle, 10 per cent. of three-fifths of the total force.

Of total casualties—

20 per cent. will be killed.

10 per cent. will be slightly wounded, and should be retained in field medical units.

70 per cent. require hospital treatment.

Of the last named (70 per cent.)—

70 per cent. will require treatment in L. of C. units.

30 per cent. will require to be evacuated to home territory.

R.A.M.C.  
Training,  
p. 111.

A stretcher squad usually takes about 1 hour to carry a wounded man back a distance of 1 mile and return.

One medical officer can usually attend to 7 to 8 wounded men per hour in a field ambulance.

There are 47 executive medical officers in a division; 27 of these are in the field ambulances.  $27 \times 6$  (patients per hour) = 162, or, say, 200 patients per hour.  $47 \times 6 = 282$ , or, say, 300 patients per hour.

A division with 5 per cent. casualties will probably have 200 killed and 800 wounded.

The 800 wounded could be attended to by the field ambulances in 4 hours.

25 per cent. casualties in a division will mean 1,000 killed and 4,000 wounded. The field ambulances would require 20 hours to attend to these.

Ambulance wagons (horsed) can do from fifteen to twenty-five miles daily on good roads.

*Macpherson's Formulæ.*

T = Time allowed.

W = Number of sick and wounded.

t = Time taken by transport material for 1 journey and return.

M = Units of transport required or available.

n = Number of patients each unit of transport carries.

Col. W. G.  
Macpherson,  
R.A.M.C.  
(*Journ. of*  
*R.A.M.C.*),  
R.A.M.C.  
Training,  
p. 129.

$$M = \frac{1}{T} \times \frac{W \times t}{n} : ---$$

To obtain amount of transport required,

or

$$T = \frac{1}{M} \times \frac{W \times t}{n} : ---$$

To calculate the time taken with a given amount of transport to evacuate a given number.

*Example.*

A division with 1,000 wounded. No auxiliary transport. 200 of these (20 per cent.) should be able to walk five miles. Ambulance transport has come up to within  $2\frac{1}{2}$  miles of the field.

The above 200 should be able to reach the place where the ambulance transport is collected.

The ambulance wagons have to do  $2\frac{1}{2}$  miles each journey; they should be able to perform from three to five journeys, including return (15 to 25 miles)



There will be 600 cases requiring sitting accommodation. 17 ambulance wagons, carrying 12 each, can take all these in three journeys to the head of the supply column (refilling point).

There will be 150 lying-down cases. 12 ambulance wagons in three journeys can take these.

∴ All the wounded can be brought to the "refilling point" or such suitable place in three journeys.

## THE STAFF OF THE MEDICAL SERVICE.

R.A.M.C. Training, p. 102, *et seq.*  
F.S.R., ii, pp. 40, 45.  
W. E., p. 35.

(1) Director of Medical Services on Adjutant-General's branch of Headquarter Staff. For duties see F.S.R., ii, p. 48.

(2) Two Assistant Directors of Medical Services, one of whom will be Sanitary Officer. (Also attached to A.-G.'s branch of Headquarter Staff.)

W. E., p. 35.  
R.A.M.C. Training, p. 101.

(3) Deputy-Director of Medical Services. The representative of D.M.S. on the Headquarter Staff of I.G.C. He is responsible to I.G.C. and D.M.S. for the medical service of the L. of C., including evacuating and distributing zones.

(4) Two Deputy-Assistant Directors of Medical Services. One of these will be for sanitary services.

R.A.M.C. Training, p. 102.  
W. E., p. 42.

(5) Assistant Directors of Medical Services, of divisions and cavalry divisions.

The adviser of the Commander and his staff on technical matters.

Commands the R.A.M.C. units of the division, receives and transmits to them the orders of the Divisional Commander, together with his own orders.

R.A.M.C. Training, p. 105.

Under the orders of the Divisional Commander, and in consultation with the staff, the A.D. of M.S. suggests, or drafts, paragraphs for insertion in the operation orders of the Divisional Commander.

notifying such medical and sanitary matters as require to be known by the troops of the division.

As O.C. R.A.M.C. he issues operation, routine, or other orders for R.A.M.C., based on divisional orders.

(6) D.A.D.M.S. Assistant to A.D.M.S. Also Medical Officer to the Divisional Headquarter Staff and Sanitary Officer.

## SECTION X.

### SANITATION.

#### Sanitary Organization of Field Units.

##### *Regimental Sanitary Detachments.*

##### *Infantry Battalion—*

- 1 corporal and 4 men, R.A.M.C., for water duties. W.E., i,  
 1 N.C.O. and 8 men (Regimental) as sanitary police, wearing "R.P." arm badge. p. 142.  
 (For duties, see F.S.R., ii, Sec. 71.) F.S.R., ii, sec. 84.  
 R.A.M.C. Training, p. 95.  
 W.E., i, pp. 61, 63.

##### *Cavalry Regiment—*

- 1 corporal and 2 men, R.A.M.C.  
 1 N.C.O. and 8 men (Regimental).

##### *Field Artillery Brigade—*

- 1 corporal and 3 men, R.A.M.C. W.E., i,  
 1 N.C.O. and 8 men (Regimental). pp. 83, 87.

#### Sanitary Squad.

- 1 serjeant and 5 privates, R.A.M.C. R.A.M.C. Training, p. 98.  
 Wear "M.P." badge. W.E., p. 205.  
 One to each road or railway post on L. of C. and two for each advanced dépôt.  
 (For duties, see F.S.R., ii, Sec. 72.)



## Sanitary Section.

1 officer and 25 personnel.

The N.C.O.'s and men wear "M.P." badge.  
(For duties, see R.A.M.C. Training, p. 97.)

### Latrines.

To leeward of camp.

R.A.M.C.  
Training,  
p. 84.

Avoid fouling water supply.

If possible 100 yards from tents, and as far as possible from kitchens, &c.

Allow—

(a) In bivouacs, for 3 per cent. of troops.

(b) In ordinary camps occupied for a few days, for 5 per cent.

(c) In ordinary camps occupied for longer, for 8 per cent.

(1) Long and deep trenches—

20 yards long, 3 feet deep, 16 inches wide.

(2) Short and shallow trenches—

3 feet long, 2 feet deep, 1 foot wide.

2½ feet interspace between the trenches.

Allow 5 short trenches to every 100 men (5 per cent.). If numbers are 500 or upwards allow 3 per cent.

R.A.M.C.  
Training,  
p. 87.

*Frontage* in yards.—Six times the number of hundreds of men, e.g., 200 men require 12 yards of latrine frontage.

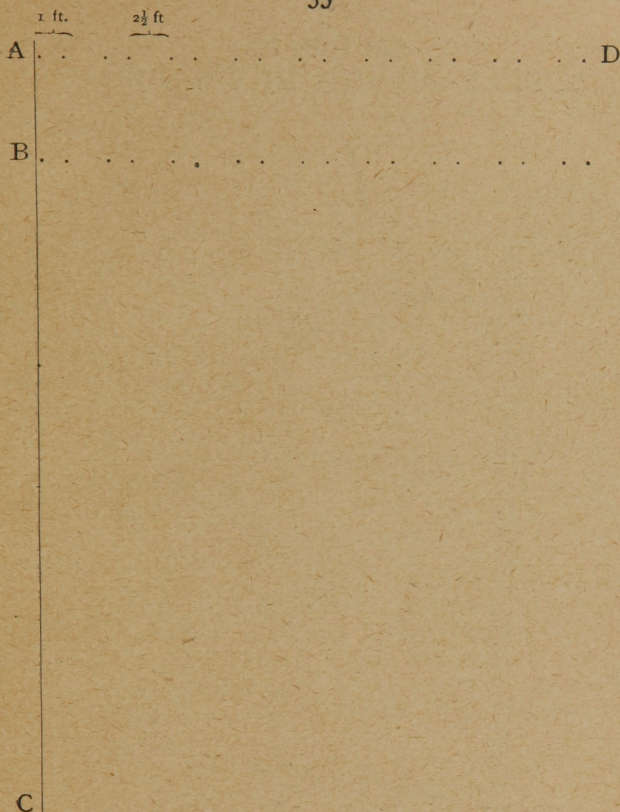
*Depth* of area in yards is two-thirds the number of days' stay, e.g., for 30 days, 20 yards.

Example of latrines required for 200 men for a 30 days' camp:—

Short and shallow trenches, 5 per cent. (under 500 men) = 10 trenches.

Frontage required,  $2 \times 6 = 12$  yards.

Depth required,  $\frac{2}{3}$  of 30 = 20 yards.



A—B = 3 feet.    A—C = 20 yards.    A—D = 12 yards.

Tour of duty for latrine sentry, 1 to 2 hours.

### Urinals.

Two trenches, each 8 feet long, for 800 to 1,000 men. R.A.M.C.  
Training,  
p. 90.

Fall of 1 inch per foot.

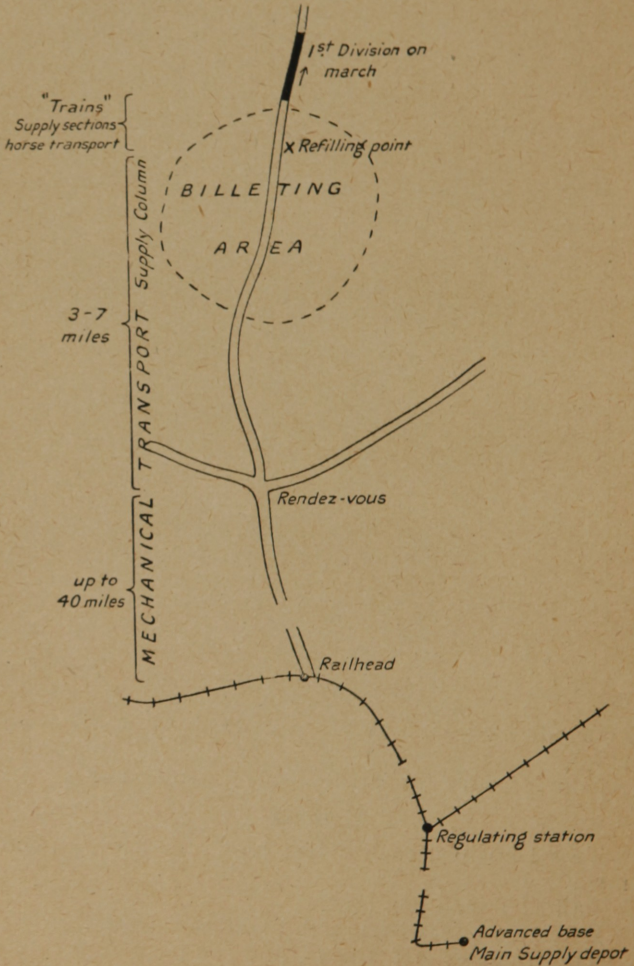
Catch pit 3 feet deep and 3 feet in diameter.

The trenches last 2 days, and the pit 8 days.



# SECTION XI. SUPPLY SERVICE IN THE FIELD.

F.S. Pocket-  
book, p. 162.



Main supply dépôt at advanced base, or at a convenient position on the railway.

Supplies are dispatched thence as required to the regulating station, where railway trains will be marshalled, and thence dispatched *daily* to railheads.

At the railheads the supplies will be received by supply columns (mechanical transport), and conveyed by them to the rendezvous (not more than 40 miles distant); on arrival here they will proceed to "refilling points" at heads of the billeting areas, from which the divisions moved that morning.

At the refilling points the supplies are handed over to the supply sections of the "Trains" (horse transport) and the mechanical transport returns at once to railhead.

Rendezvous are not always necessary.

When troops are stationary (except during battle) the supply columns will usually proceed to refilling points in brigade areas, thus saving the "trains" horses of the supply sections.

During battle the "trains" may have to go back some distance to refill from the columns.

The movements of the supply sections are dependent on those of the supply columns.

Normally the supply columns will leave railhead in the early morning, and reach refilling points at about 9 a.m.

Cavalry, divisional, and army troops' supply columns; the last includes provision for mounted brigades.

"Trains" = 2nd line transport, mobilized by units, and accompanies them overseas, but on arrival in the area of concentration it is withdrawn from units and is organized as "trains" under the A.S.C.

### Transport for Supplies.

Divisional supply column, 38 3-ton lorries.

Cavalry supply column, 108 30-cwt. lorries.

Army troops' supply column, 16 30-cwt. lorries.

W.E., p. 214.

W.E., p. 208.

W.E., p. 219.



- W.E., p. 158     Divisional train supply vehicles, 7 carts, 51 g.s. wagons.
- W.E., p. 165.     Army troops' train supply vehicles, 16 g.s. wagons.
- W.E., p. 222.     Reserve park, 144 g.s. wagons.  
                          Divisional supply column, 245 personnel.  
                          Cavalry supply column, 806 personnel.  
                          Army troops' supply column, 132 personnel.  
                          Divisional train, 428 personnel (including 1 officer, 4 rank and file, R.A.M.C.).  
                          Army troops' train, 100 personnel (including 1 officer, 2 rank and file, R.A.M.C.).  
                          Mounted brigade train, 158 personnel (including 2 rank and file, R.A.M.C.).  
                          Reserve parks (horse), each capable of carrying 2 days' reserve (iron) rations and 2 days' grain for a division +  $\frac{1}{8}$  of the cavalry divisional and army troops, will be maintained for use in case of emergency.

## SECTION XII.

### LINES OF COMMUNICATION.

The lines by which an army communicates with its base.

#### *Functions—*

- (1) To provide a safe route for reinforcements and supplies.
- (2) To arrange for transit to the base of sick and wounded, prisoners of war, &c.

#### *Wastage in War—*

- W.E., i, p. 3.     An average amount of 70 per cent. of the army becomes incapacitated during the first year of a war; i.e., during the first year about 14,000 men per division will be passed back along the line.

Responsibility for defence rests with the Commander, L. of C. defences. F.S.R., ii,  
p. 30.

Responsibility for control and co-ordination of traffic rests with the I.G.C.

### *System of Convoys.*

(1) Through. F.S.R., i,

(2) Staging. p. 213.

(3) Meeting.

(1) is usually adopted in front of the advanced depôt.

(2) or (3) on L. of C.

For rules *re* convoys, see F.S. Manual, p. 150.

Seventy miles in front of the advanced base is the limit of operation for an army.

The limit from advanced base to railhead is about 50 miles, it is therefore probable that the extreme limit from railhead to fighting line is about 120 miles. In modern civilized warfare it will probably be usually under 15 miles.

An army should not, as a rule, be entrained for a less distance than 100 miles.

The *preferable* frontage of a fighting army is about 12 miles.

Beds for sick and wounded will be required at the base and on the L. of C. for 7 to 8 per cent. of the fighting force.

### RAILWAY ARRANGEMENTS FOR SICK AND WOUNDED.

Two trains per hour on a good double line is a *good* average, 15 to 25 miles per hour.

English railway stations are not adapted for military purposes; continental stations offer far greater facilities.



## Rules for Guidance.

(Also see F.S. Pocket-book, pp. 128, 129.)

(1) Leave the main through platform free for ordinary traffic.

(2) Avoid "island" platforms.

(3) If possible obtain "end-loading" trucks and platforms, especially when dealing with vehicles.

(4) Information is best obtained at the goods-yard when entraining any troops, except infantry without vehicles.

(5) Load horses "heads and tails," and pack them closely.

(6) Have a "forming-up" place, e.g., a field, close to the station.

(7) Latrine accommodation and drinking water.

(8) Detail some men as military police.

(9) In delivering sick and wounded at a station, arrange for a "circular" drive if possible, so as to obviate the necessity for vehicles turning.

(10) If at night, arrange for a flare light.

(11) If trucks are used for personnel, allow 5½ square feet per man.

F.S. Pocket-book, p. 128.

## SECTION XIII.

### INTERCOMMUNICATION AND ORDERS.

F.S.R., i,  
p. 25.

F.S. Pocket-book, Ch. III,  
p. 48.

(1) Standing orders.

(2) Operation orders.

(3) Routine orders.

(4) Messages.

(1) *Standing Orders.*

*Objects—*

(a) To adapt existing regulations to local conditions.

(b) To save repetitions in operation and routine orders.

Must be carefully kept up to date.

(2) *Operation Orders.*

Deal with strategical and tactical operations.

Issued by the General Staff.

Include such information as it is necessary for the troops to know.

The A.D.M.S., as the G.O.C.'s adviser on medical matters, drafts a paragraph for insertion in operation orders; if approved this draft is inserted in divisional operation orders above the signature of the G.S.O.

The A.D. of M.S., as the O.C. the R.A.M.C. of the division, issues operation, routine, or other orders for the R.A.M.C., based on divisional orders.

R.A.M.C.  
Training,  
p. 102.

*Examples of Orders.*

(a) Draft for insertion in operation orders, 1st Division, by Col. A. B., A.D. of M.S., 1st Division. Ref.  $\frac{1}{2}$  in. Ordnance Map, No. —.

10.1.13.

*Medical Arrangements—*

No. 1 Field Ambulance will accompany the 1st Brigade.

No. 2 Field Ambulance, less "B" Section, will remain at FULTON.

"B" Section, No. 2 Field Ambulance, will proceed to GRAYTON, arriving at that place at 8 a.m.,  
11.1.13.

No. 3 Field Ambulance will remain at DISLEY.

(Signed) A. B., Colonel, A.M.S.,

A.D. of M.S., 1st Division, for A.G.

Copy No. 1.

(b) R.A.M.C. Operation Orders, No. 1, by Colonel A. B., A.M.S., Commanding R.A.M.C., 1st Division:—

Red Lion, DISLEY.

10.1.13.

Ref.  $\frac{1}{2}$  in. Ordnance Map, No. —.

(1) No. 1 Field Ambulance will operate over the area from point 327, 1 mile S. of the S in WEST-BURY to the road running S.E. from OVERTON to WICK.



(2) "B" Section, No. 2 Field Ambulance, will operate over the area from the road running S.E. from OVERTON to WICK to point 875,  $\frac{1}{2}$  mile S. of GRAYTON.

(3) "C" Section, No. 2 Field Ambulance, will form a divisional collecting station at ORTON.

(4) "A" Section, No. 2 Field Ambulance, will remain at FULTON.

(5) No. 3 Field Ambulance will remain at DISLEY.

(6) Casualties will be evacuated to RENTON.

The A.D. of M.S. will be at DISLEY, where reports and messages should be sent.

(Signed) A. B., Colonel,

Commanding R.A.M.C., 1st Division.

Issued at 8 p.m. by mounted orderly.

No. 1 to O.C. No. 3 Field Ambulance.

No. 2       "       "       1       "       "

No. 3       "       "       2       "       "

No. 4, office file.

(c) No. 1 Field Ambulance Orders, by Lt.-Col. D.E., R.A.M.C., Commanding No. 1 Field Ambulance:—

OVERTON.

11.1.13.

Ref.  $\frac{1}{2}$  in. Ordnance Map, No. —.

(1) Ref. R.A.M.C. operation orders, No. 1, of 10.1.13.

"B" Tent Subdivision will form a dressing station in the buildings at SOUTH FARM.

The Bearer Division will operate over the area named.

Ambulance wagons will NOT proceed farther south than the WICK—ARLFORD road.

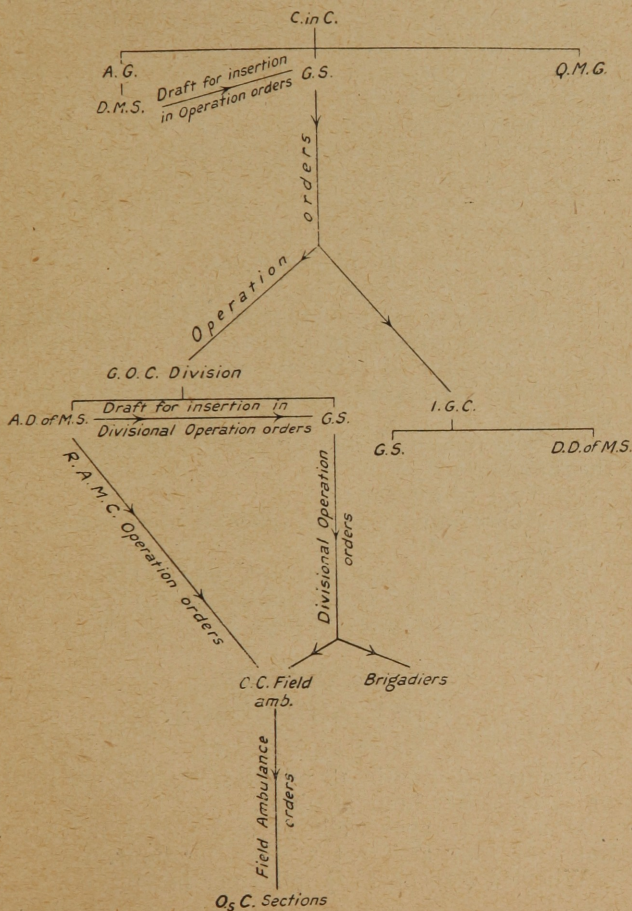
"A" and "B" Tent Subdivisions will remain at OVERTON.

Lightly wounded cases will be directed to ORTON.

(Signed) D. E., Lt.-Colonel, R.A.M.C.,  
Commanding No. 1 Field Ambulance.

Issued at 6 a.m. personally.  
 No. 1 to O.C. "B" Section.  
 No. 2        "        " "C" Section.  
 No. 3 office file.

### Diagram to Illustrate Channel for Orders.





### *Rules for Framing Orders.*

- (1) Clear writing.
- (2) Conciseness.
- (3) Time—note a.m. or p.m. If "12" add "noon" or "midnight." A night should be described thus: "Night, 30th June/1st July."
- (4) Names of persons and places in block type, also the word "not."
- (5) Portion of a unit: "Unit less—," e.g., No. 1 Field Ambulance less "C" section.
- (6) Specify the map referred to. Note positions by true bearings of compass or by letters on the map.
- (7) Avoid ambiguous terms.
- (8) Note on each copy the unit to which sent.
- (9) Keep an endorsed copy.

### *Field Messages.*

- (1) Use A.F. C.2121 (in A.B. 155).
- (2) Messages for headquarters of units should be addressed in abbreviated form, e.g., "Fifth Inf. Bde." Director of Medical Services: "Medical."
- (3) After the address, number of message and day of month.
- (4) If in reply to a message from addressee, quote the number.
- (5) Text of message.
- (6) Abbreviated title of sender's unit, place, and time of dispatch.
- (7) Sign, rank, appointment, and force.
- (8) Use "AAA" (in signal messages) for "stop."
- (9) Signal messages should be as short as possible.

## SECTION XIV.

### TIME AND SPACE.

#### *Rates of Marching.*

Infantry—1 mile in 18 minutes, 3 miles per hour, or  $1\frac{1}{2}$  miles per hour at night.

Mounted troops—walk  $3\frac{1}{2}$  and trot 7 miles per hour, or walk and trot 5 miles per hour.

Wheeled transport,  $2\frac{1}{2}$  miles per hour.

F.S.R., i,  
p. 22.

F.S.R., i,  
p. 34.

F.S. Pocket-  
book, p. 31.

Bullock cart,  $1\frac{1}{2}$  miles per hour.

Camel, 2 miles per hour.

Pack mule, 3 miles per hour.

Pack donkey,  $1\frac{1}{2}$  miles per hour.

Coolie, 2 miles per hour.

Tractors,  $3\frac{1}{2}$  miles per hour.

Motor lorries, 6 miles per hour.

These rates include short halts.

All troops, mounted or dismounted, move to the starting-point at the rate of 100 yards per minute.

### *Road Spaces on the March.*

Infantry brigade, 2 miles.

Division,  $14\frac{1}{2}$  miles +  $1\frac{1}{2}$  miles for A.S.C. trains.

Mounted brigade,  $2\frac{1}{2}$  miles.

Cavalry brigade,  $1\frac{3}{4}$  miles.

Cavalry division, 11 miles +  $1\frac{3}{4}$  miles for A.S.C. trains.

Battalion of infantry, 834 yards.

Regiment of cavalry, 947 yards.

F.A. battery, 482 yards.

The fighting troops of a division take 4 hours to pass a given point.

Depth of fighting troops usually about 5 miles.

*Preferable* frontage of a fighting army, about 12 miles.

Rifle range,  $1\frac{1}{2}$  miles.

Gun range,  $4\frac{1}{2}$  miles.

### *Officers' Field Kits.*

35 lb. (50 lb. for a C.O.).

A bullock trunk with 100 lb. may be left at the base.

F.S. Pocket-book, p. 31.

F.S. Pocket-book, p. 170.  
F.S.M., p. 35.

## SECTION XV.

When selecting and reporting on a site and on local resources, note—

(1) Buildings.

(a) Hospitals.

(b) Hotels.

(c) Schools.

(d) Workhouses, public halls, &c.



With regard to above, note—

- (a) Accommodation.
- (b) Sanitary and washing accommodation.
- (c) Bedding, equipment, &c.
- (d) Kitchens.
- (2) Medical and nursing personnel, skilled and other labour available.
- (3) Transport available, motors, horses, &c.
- (4) Chemists' shops.
- (5) Supplies of food and comforts.
- (6) Supplies of upholstery, ironmongery, and crockery.
- (7) Position, and nature of railway station.
- (8) Add a rough sketch.

A good deal of information can often be obtained at the local police station.

### *Buildings.*

R.A.M.C.  
Training,  
para. 256.

Rooms 15—20 feet wide accommodate 1 man to every yard of length.

Rooms over 20 feet wide accommodate 2 men to every yard of length.

Rooms over 25 feet wide accommodate 3 men to every yard of length.

(Allow 40—50 square feet floor space per man, Mobilization Regulations, Appendix H.)

### *Billeting.*

Mobilization  
Regulations,  
App. H.

Billeting book, A.B. 123.

In England the law does not permit general billeting in peace.

The worst billet is better than the best bivouac.

The effect of cold and wet is felt even more by horses than it is by men.

#### (1) *Bivouacs—*

*Advantages—*Concentration and readiness.

Ease of discipline.

*Disadvantages—*Trying to health, especially in bad weather.

Difficulty of concealment (especially from aeroplanes).

F.S.R., i,  
p. 74, *et seq.*

(2) *Close Billets*—

As many men and animals as possible are billeted, the remainder bivouac.

All accommodation, e.g., cellars, outhouses, &c., is taken up. Greater readiness than in ordinary billets.

(3) *Ordinary Billets*—

*Advantage*—Greater shelter and comfort.

*Disadvantages*—Less readiness, more dispersion.

(a) Ordinary billets without subsistence can be provided at the rate of 10 men per inhabitant in rich agricultural districts, and about 5 men per inhabitant in town districts.

Ordinary billets with subsistence can be provided by an area for a force about equal to twice its total population for one week.

(b) When troops have to be billeted for a considerable time in one area in their own country one man can be allotted to every three inhabitants without much inconveniencing the latter.

(c) During preliminary concentration or during an armistice one man per inhabitant with subsistence or three men per inhabitant without subsistence.

In ordinary circumstances troops in billets will occupy the same length of area as they do on the march.

*Allotment of Billets.*

(a) Divisional billeting parties consist of representatives of brigades and divisional troops, one R.E. and one R.A.M.C. officer. An officer of Q.M.G.'s branch is in charge. This party will proceed in advance, proceeding usually with the protective cavalry, select and allot the billeting areas to brigades, &c. F.S.R., i,  
P. 74.  
F.S.R., i,  
sec. 45 (4),  
sec. 51 (4).

(b) Commanders of brigade areas will distribute the billeting accommodation among units.

(c) Regimental (unit) billeting parties consist usually of a quartermaster or quartermaster-serjeant with a cycle orderly.

These parties march with the advanced guard.



*Points to be observed.*

(1) Hospitals should be in a quiet spot and sanitary position.

(2) Staff and hospitals have the first claim on buildings.

F.S.R., i,  
Ch. IV.

(3) Officers must be near their men.

(4) Everyone must know what he has to do in case of alarm.

F.S. Pocket-  
book, p. 37

(5) A medical officer of the day should be appointed in each brigade area.

(6) Roads and communications must not be blocked.

(7) Officers will visit the men's billets at least once daily and once nightly.

(8) Issue instructions as to fires and lights.

(9) Latrines, washing and watering-places may have to be constructed.

(10) Carefully guard against pollution of billeting area.

*Rations.*

W.E., i,  
pp. 11, 12.

(1) *Field ration*

(a) Bread and meat ration	{	1 $\frac{1}{4}$ lb. fresh <i>or</i> 1 lb. preserved meat.
		1 $\frac{1}{4}$ lb. bread <i>or</i> 1 lb. biscuit.
		4 oz. bacon.
(b) Grocery ration	{	Tea, sugar, jam, salt, cheese, &c.
		( <i>vide</i> Allowance Regulations).
(c) Vegetable ration	{	2 oz. dried vegetables.

(2) *Iron ration* {  
 1 lb. preserved meat.  
 12 oz. biscuit.  
 $\frac{5}{8}$  oz. tea.  
 2 oz. sugar.  
 $\frac{1}{2}$  oz. salt.  
 3 oz. cheese.  
 2 cubes (1 oz.) meat extract.

(3) *Emergency food*—9  $\frac{1}{2}$  oz.

*How carried.*

- |                               |                  |                                   |
|-------------------------------|------------------|-----------------------------------|
|                               |                  | One "emergency food,"             |
|                               |                  | { 9½ oz. (chocolate and pro-      |
|                               |                  | teid).                            |
| (1) <i>On the soldier</i>     |                  | One iron ration.                  |
|                               |                  | The bread and cheese              |
|                               |                  | ration issued previous            |
|                               |                  | evening, <i>less</i> any portion  |
|                               |                  | consumed.                         |
|                               |                  | { The day's ration (except        |
|                               |                  | bread and cheese) issued          |
| (2) <i>In cooks' vehicles</i> |                  | the previous evening, <i>less</i> |
|                               |                  | any portion consumed.             |
|                               |                  | One vegetable ration.             |
|                               |                  | { 1 field ration (bread           |
| (3) <i>In A.S.C. trains</i>   |                  | and meat, grocery,                |
| (or in supply columns)        |                  | vegetables).                      |
|                               | { 1 iron ration  |                                   |
|                               | 1 emergency food | on soldier.                       |
| Total                         |                  | { 1 in cooking vehicles           |
|                               |                  | ( <i>less</i> bread and cheese,   |
|                               | 2 field rations  | and portion con-                  |
|                               |                  | sumed), 1 in A.S.C.               |
|                               |                  | trains.                           |

## SECTION XVI.

## GENEVA CONVENTION.

No explosive projectile below 400 grammes.

Laws and customs of war apply to armies, *and* to R.A.M.C.  
volunteers provided they—  
Training,  
Ch. XIX.

(1) Are commanded by a person responsible for his subordinates.

(2) Wear a distinctive emblem (uniform).

(3) Carry arms openly.

(4) Conduct operations in accordance with the laws and customs of war.



## GENEVA CONVENTION OF 1906.

(1) Sick and wounded must be taken care of irrespective of nationality.

(2) Medical personnel must, as far as military exigencies permit, be left in charge of sick and wounded.

*Note.*—Obtain sanction of G.O.C. before leaving any personnel, as it will only be returned by the enemy when convenient to themselves.

(3) Personnel in charge of convoys is protected; armed sentries protecting a medical convoy cannot be made prisoners of war.

(4) Regimental stretcher-bearers are not entitled to protection under the Convention (wear S.B. armlet, but not the brassard).

(5) After an engagement the Commander in possession of the field shall take measures to search for the wounded.

(6) The belligerents shall keep each other mutually informed as to sick and wounded.

### *As regards Material.*

(1) Material of *mobile* units of Army Medical Service is not prize of war, but can be used by enemy pending restoration.

(2) Material of fixed units is prize of war, but must not be diverted from its purpose.

### *Example.*

A convoy of wounded, consisting partly of field ambulance, personnel and material, partly of A.S.C. "trains," vehicles, and partly of civilian vehicles, is captured by the enemy:—

(1) R.A.M.C. personnel. Pending restoration at captors' convenience they shall continue to perform duties under the captors. Shall not be treated as prisoners of war.

- |   |  |
|---|--|
| (2) A.S.C. drivers of ambulance wagons and other vehicles of field ambulance. | Pending restoration at captors' convenience they shall continue to perform duties under the captors. Shall not be treated as prisoners of war. |
| (3) A.S.C. drivers of g.s. wagons of A.S.C. "trains."                         | Prisoners of war.  |
| (4) Armed escort.   | As (1).  |
| (5) Sick and wounded.   | Prisoners of war.  |
| (6) Medical and surgical material of field ambulance.                         | Is not prize of war; can be used for treatment of sick; restored as under (1).   |
| (7) Field ambulance vehicles and teams.                                       | As (6).  |
| (8) Vehicles of A.S.C. train.   | Prize of war.  |
| (9) Civilian vehicles.  | Can be retained by captor under requisition.   |

*Voluntary Assistance to Sick and Wounded.*

(1) Ambulance department of the Order of St. John.

(2) Ambulance department of St. Andrew's Ambulance Association.

Any voluntary offers of assistance other than the F.S.R., ii, above named must be submitted to the British Red P. 126. Cross Society, who will, if favourable, submit them to the Army Council, and, if accepted, they will be divided into two classes:—

(1) Those willing to provide gifts or to receive convalescents.

(2) Those willing to provide complete medical units.

All will be subject to authority of C. in C.



As a rule they will be solely utilized at the base and on the L. of C.

Only British subjects.

F.S.R., ii,  
p. 128.

No visitors without a pass signed by medical authorities and countersigned by General Staff.

## SECTION XVII.

### HORSE MANAGEMENT.

#### *Rations.*

F.S. Pocket-  
book, p. 157.

(1) *In peace*—12 lb. oats, 10 lb. hay, 8 lb. straw, daily.

(2) *On service*—12 lb. oats, 12 lb. hay, daily.

For heavy draught horses, 15 lb. oats, 16 lb. hay, daily.

#### *How carried—*

On the horse—I corn ration (the ration issued the previous evening, *less* any portion consumed).

In A.S.C. trains

or in

supply columns

} 1 corn ration.

One bale of compressed forage (82 lb.) is carried in the locker of each g.s. and ambulance wagon.

Reserve parks with 2 days' reserve grain are available if required.

F.S.R., i,  
p. 82.

*Water*—10 gallons per horse per diem in standing camps. A horse drinks about  $1\frac{1}{2}$  gallons at a time.

#### *Picketing—*

Frontage, 5 feet.

Picket line to heel peg 12 feet.

Gangway of 15 feet between two horse lines.

Saddlery and forage in rear of lines.

Headropes should be just slack when the horse is standing naturally.

*Horse Lines—*

Sheltered position, avoid wet hollows, level ground; if this is not available, picket horses with their heads down hill.

Shift site after a wet night.

Picket kickers separately.

Scrub the nose-bags frequently.

A good draught horse should draw a weight of 1,200 lb. 20 miles per diem, walk 3, and trot 6 miles per hour.

Draught horse = 6 men.

Weight, 11 cwt.

Average time for watering a horse, 5 minutes.

An officer will accompany a watering party of 20 horses or more.

Water after work and before food.

Remove bits and loosen girths before watering.

*Bitting.*—Corners of mouth should not be wrinkled, the curb chain should lie in the chin groove.

*Girthing.*—Tighten girths gradually, see that skin under girth is not pinched or wrinkled.

*Shooting.*—Aim in centre of forehead at lowest hairs of forelock.

*Bran mash.*—Double handful of bran, add enough boiling water to moisten thoroughly, cover with a blanket until cool.

*Forage—*

*Oats* should be clean, sweet and hard, and should weigh 38 lb. to the bushel.

*Hay*—New hay should not be issued before October, 56 lb. to the truss.

*Straw*—Wheat is best, 36 lb. to the truss.

On returning from work leave the saddle on for a short time after loosening girths.

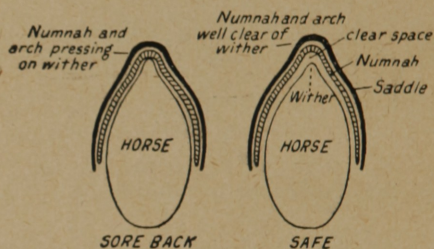


### *Saddle-fitting—*

Front arch at least one inch clear of wither when rider is in saddle, the rear points clear of back. The saddle should be bedded behind the play of the shoulder.

### *Sore backs, causes—*

- (a) Unsteady or tired riding.
- (b) Badly fitting tree.



- (c) Pressure of saddle from horse's loss of condition.
- (d) Long-continued weight in the saddle.
- (e) Exposure of a hot back to the sun.

### *Shoeing—*

Do not rasp the walls of hoof.

The nails should not be driven inside the line of white horn where sole joins walls.

The front nails should come through walls  $\frac{3}{4}$  inch from edge of hoof, middle nails slightly lower, and heel nails lower still.

Do not cut out the sole or frog, beyond paring off ragged ends.

Shoes should be removed monthly.

Feet must be kept clean.

*Treatment of Ailments.*

*Cold*—Steam by means of a bucket of hot water with a little hay in it, a blanket placed over this and the horse's head. Give plenty of water, with the chill off, to drink.

*Colic*—Move the horse about, hand-rub the belly, soap and water enema, give by the mouth a pint of linseed oil with 1 oz. of turpentine or a bottle of warm beer.

*Stoppage of Urine*—Shake litter under the horse and whistle, give 2 teaspoonfuls of nitre in a tumbler of water.

*In giving a ball*—Hold the horse's tongue in the left hand, raise the head, place ball at the root of the tongue with right hand, then lower head.

*In giving a drench*—If horse coughs, lower his head.

## SECTION XVIII.

## MAP READING.

## Military Maps, Field Sketches, and Panorama Sketches.

*Scale.*

In the United Kingdom, India, and Canada, inches to the mile.

British Africa and the Continent, a fraction, e.g.—

$$\frac{1}{63,360} \text{ (63,360 inches in one mile).}$$

$$\frac{1}{100,000} \text{ (100,000 cm. in 1 km.).}$$

This fraction is called the "Representative fraction" or "R.F.," the numerator being always 1 unit.



*Given R.F. construct a scale in miles:—*

(1) If scale is  $\frac{1}{63,360}$  or larger (i.e., one of inches to the mile) multiply R.F. by 63,360, e.g.—

$$\text{R.F.} = \frac{1}{10,000}$$

$$\frac{1}{10,000} \times 63,360 = 6.33.$$

Scale is one of 6.33 inches to 1 mile.

(2) If scale is smaller than  $\frac{1}{63,360}$  divide the denominator of R.F. by 63,360; this gives number of miles to the inch, e.g.—

$$\text{R.F.} = \frac{1}{250,000}$$

$$\frac{250,000}{63,360} = 3.95.$$

Scale is one of 3.95 miles to 1 inch.

“Unit of measure” = the measure of length which a scale is constructed to show, whether feet, yards, or miles.

*To construct a scale:—*

Simple if the distance between two points shown on the map is known, *or*

Pace ( $2\frac{1}{2}$  feet) between two points on the ground and compare with the distance shown between these points on the map. Show distance on map in inches as numerator and distance on ground in inches as

denominator, and reduce fraction until numerator = 1.

$$\text{Map in which R.F.} = \frac{1}{100,000}.$$

In this case 100,000 inches, or roughly  $1\frac{1}{2}$  miles ( $1\cdot58$ ) = 1 inch.

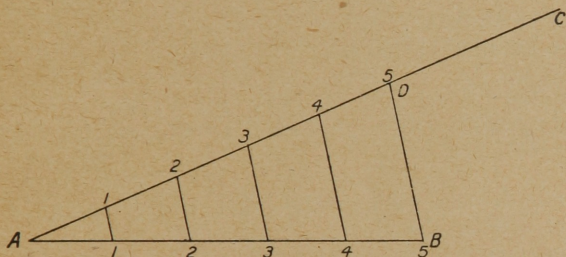
∴ 9 miles require a line *about* 6 inches in length. Thus—

$$100,000 \text{ inches} : 9 \times 1760 \times 3 \times 12 :: 1 \text{ inch} : x = 100,000 : 570,240 :: 1 : x = 5\cdot7.$$

Construct a line 5·7 inches in length and divide it into 9 equal parts, each part = 1 mile.

To divide a straight line into any number of equal parts—

Euclid,  
Book VI,  
prop. X.



Divide AB into 5 equal parts—

Draw AC ( $\angle BAC = \text{about } 20^\circ$ ).

Set off on AC 5 equal divisions, let D be the last dividing point.

Join DB.

From the other dividing points on AD draw lines to AB parallel to DB.

*Measurements—*

The diameter of a halfpenny = 1 inch.

Lines on official foolscap are  $\frac{1}{3}$  inch apart.

The leaves of A.B.153 are ruled in  $\frac{1}{4}$  inch squares.

For conventional signs, see F.S. Pocket-book,

p. 79.



*Roads.**(a) First-class—*

14 feet, or more, of metalling.

No gradient over 1 in 30.

Sufficient space for a double line of wagons.

*(b) Second-class—*

Under 14 feet of metalling.

Good repair.

*(c) Third-class—*

Under 14 feet of metalling.

Bad repair.

Unfit for guns or military wagons.

*(d) Fourth-class—*

Unmetalled cart tracks.

Minimum width of roadway for cavalry in files (2 abreast), infantry in fours, or wagons in single line—10 feet.

*Bridges* for military wheeled traffic should be 8 feet wide in the clear.

*Fords* (mark by pickets).

F.S. Pocket-  
book, p. 28.

Fordable for infantry—3 feet in depth.

„ „ cavalry—4 „ „

„ „ wagons—2 ft. 4 in. „

*Representation of Hill Features.**(1) Hachuring—*

Short disconnected lines drawn directly down the slopes.

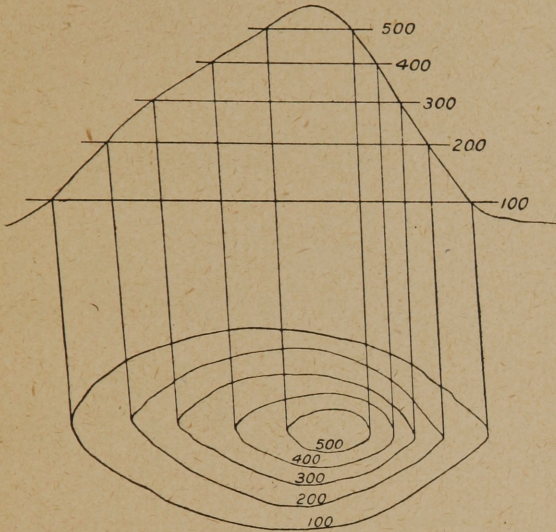
The lines are drawn closer when slope is steeper.

*(2) Layering—*

The darker the shade of colour the higher the elevation.

(3) *Contours*—

Lines representing the outlines of a hill cut at regular vertical intervals by imaginary horizontal planes. Manual of Map-reading p. 20.



The closer the contour lines the steeper the slope.

The vertical distance of level between two adjacent contours is the "vertical interval," or VI, always expressed in feet.

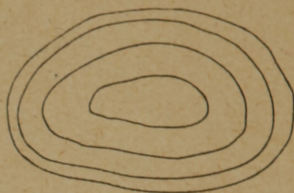
"Contours at 50 feet VI" means that two successive contours are separated by a vertical interval of 50 feet.

The distance on the map between two adjacent contours is called the "horizontal equivalent," or HE, usually expressed in yards.

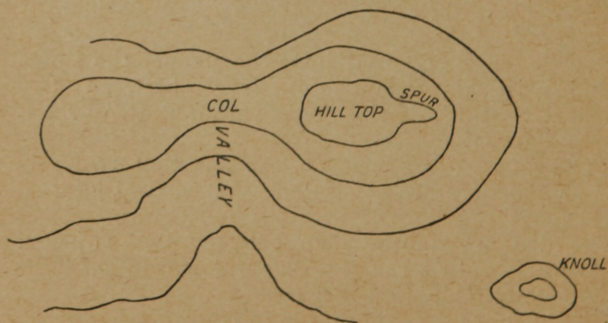
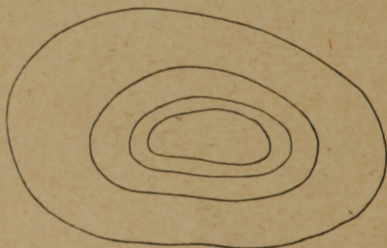
"Form lines" = approximate contours.



(a) *Hill with Convex Slope* :—



(b) *Hill with Concave Slope* :—



*Slopes and Gradients, Expressed—*

(1) In degrees.

(2) As a gradient or fraction.

A road with a "ruling gradient" of  $1/30$  means that no part of the road is steeper than 1 in 30.

*To Convert Slopes to Gradients.*

A slope of  $1^\circ$  = a gradient of 1 in 57.3, or about 1 in 60.

Divide 60 by the denominator of the gradient, e.g.—

A gradient of  $\frac{1}{30}$  = a slope of  $2^\circ$ .

A slope of  $5^\circ$  = a gradient of 1 in 12.

$$\frac{\text{VI}}{\text{HE (in feet)}} = \text{gradient.}$$

e.g.—

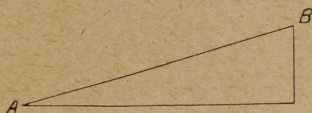
A = 10 feet.

B = 40 feet.

Distance A—B = 90 feet.

$$\frac{30 \text{ (VI)}}{90 \text{ (HE)}} = 1/3.$$

$\therefore$  Slope is 1 in 3.



To ascertain difference of level between two points where degree of slope between them is known:—

$$\text{HE} \times \text{D} = \text{VI} \times 19.1.$$

D = Degree of slope.

HE = Horizontal equivalent in yards.

VI = Vertical interval in feet.

$$57.3 \div 3 = 19.1.$$



e.g.—

Find difference of level between A and B, B being the lower.

Slope from A to B =  $5^{\circ}$ .

Distance from A to B = 1,000 yards.

$$\frac{1,000 \times 5}{19.1} = VI = 261.78.$$

19.1

$\therefore$  A is 261.78 feet above B.

Or shortly—

$$HE = \frac{VI \times 20}{D} \text{ yards.}$$

D

HE (yards)

$$VI \text{ feet} = \frac{HE \text{ (yards)}}{20} \times D.$$

20

### *Slopes.*

Gentle, up to  $5^{\circ}$  (1 in 12).

Ordinary,  $5^{\circ}$ — $15^{\circ}$  (1 in 12—1 in 4).

Steep,  $15^{\circ}$ — $25^{\circ}$  (1 in 4—1 in  $2\frac{1}{2}$ ).

Very steep, over  $25^{\circ}$ .

Slopes of  $5^{\circ}$  form no obstacle to movements of troops.

Slopes of  $10^{\circ}$ —infantry can move in close formation with difficulty, artillery with difficulty.

Slopes of  $15^{\circ}$ —"Limit for manœuvre."

Slopes of  $20^{\circ}$ —Impossible for artillery and cavalry.

Slopes of  $30^{\circ}$ —Impossible for infantry in close formation.

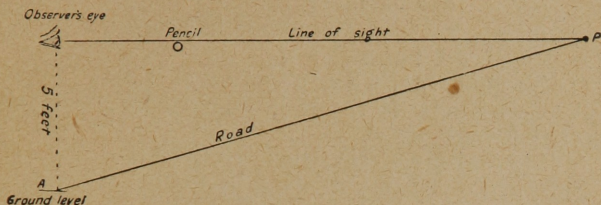
For military roads the gradient should rarely exceed 1 in 20.

Heavy wagons cannot ascend a steeper gradient than 1 in 7 without extra horses.

*To determine gradient of a road (roughly).—*Eye of observer 5 feet above the ground, look along the road uphill. Hold a pencil horizontally at arm's

length with upper edge level with eye. Observe where sight ray cuts the ground, call this point P.  
 Pace number of yards to P.

The road rises 5 feet in so many yards, e.g.—



P. is 10 yards (30 feet) from observer, A.

$$5/30 = 1/6.$$

∴ Gradient of road is 1 in 6.

### “True” and “Magnetic” North.

Annual and positional changes.

N. India  $2^{\circ}$  E.

S. India due N.

S. Africa  $25^{\circ}$  W.

France and Germany,  $10^{\circ}$ — $15^{\circ}$  W.

England about  $15^{\circ}$ — $18^{\circ}$  W.

When taking bearings avoid the proximity of iron.

Manual of  
Map-reading,  
p. 36.

“True bearing” = the angle a line makes with the true N. line.

“Magnetic bearing” = the angle a line makes with the magnetic North line.

### Rules for Conversion of Bearings.

A.—When variation is W.—

(1) To find *true*, when given *magnetic* bearing, subtract variation; if result is minus, subtract it from 360, e.g.—

Magnetic bearing =  $9^{\circ}$ , find true.

Given variation,  $16\frac{1}{2}^{\circ}$  W.

$$9^{\circ} - 16\frac{1}{2}^{\circ} = -7\frac{1}{2}^{\circ}.$$

$$360^{\circ} - 7\frac{1}{2}^{\circ} = 352\frac{1}{2}^{\circ} = \text{true bearing.}$$



(2) To find *magnetic*, when given *true*—  
Add variation; if result is greater than  $360^\circ$ , subtract that, e.g.—

True bearing =  $349^\circ$ ; find magnetic:—

$$349^\circ + 16\frac{1}{2}^\circ = 365\frac{1}{2}^\circ.$$

$$365\frac{1}{2}^\circ - 360^\circ = 5\frac{1}{2}^\circ = \text{magnetic bearing.}$$

B.—When variation is E.—

(1) To find *true*, when given *magnetic*—

Add variation; if result is more than  $360^\circ$ , subtract that from it.

(2) To find *magnetic*, when given *true*—

Subtract variation; if result is minus, subtract it from  $360^\circ$ .

To find direction of true North—

(a) By day, by the sun.

(b) By night, by the stars.

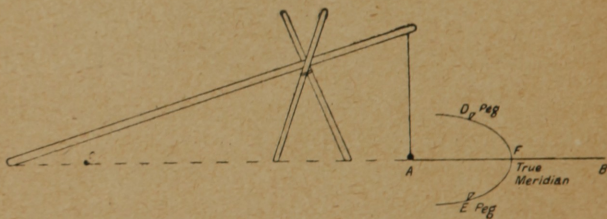
(c) By plummet.

(a) *By watch*—

Manual of  
Map-reading,  
p. 40.

Point the hour hand at the sun, a line drawn from the centre of the dial to a point midway between the hour hand and figure XII points approximately due south.

*By Plummet*—



From A as a centre describe a circle.

Mark spots with pegs at D and E where the shadow of the pole touches the circumference of the circle.

Bisect the arc between the pegs.

Joint AF.

(b) *By the Stars—*

The North star is in the same vertical plane with the pole when the star  $\zeta$  (Zeta) is vertically above or below it.

*“Setting” a Map.*

A.—With a compass, if N. line is shown on the map.

B.—Without a compass (if observer's position is known).

(a) Identify a distant object, e.g., a church; join this on the map with your position, turn the map until this line points to the distant object.

*“Sundial” Method—*

The sun at noon is due S. in the Northern hemisphere.

From E. to W.,  $15^\circ$  per hour.

$\therefore$  At 3 p.m. the sun is S.W.

*To find One's Position on the Map.*

(a) By adjustment—

Select three objects on the ground which are marked on the map.



Fasten a piece of transparent paper on a flat surface and fix a pin vertically through this paper.

Align the pin with the eye and draw rays on each of the three objects.

Place tracing-paper on map and adjust it so that the rays pass through the three objects as marked on the map.

The pin-hole will be over the observer's position.

(b) By resection—

Set the map by the compass.

Select two objects on the ground which are marked on the map.

Place a ruler with its edge passing through one of the objects on the map and align it with the corresponding object on the ground; draw a line along the edge of the ruler.

Carry out the same process with the other object.

The intersection of the lines is the position of the observer.

### *Visibility.*

In order to ascertain if a point B is visible from another point A:—

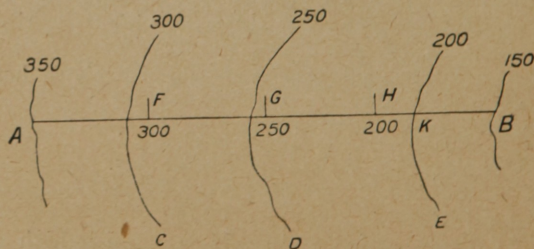
Manual of  
Map-reading,  
p. 86.

Draw a line from A to B, divide this line into as many equal parts as there are vertical intervals (as shown by contour lines).

Consider each contour in turn.

AB represents the line of sight, e.g.—

Is B visible from A?



C, D, E, are contour lines.

F, G, H, are equidistant points on A B, the line of sight.

The contour E crosses the line of sight at K at a height of 200 feet, the line of sight at this point being only (about) 180 feet.

∴ B is invisible from A.

### *Field Sketching.*

Fix a base line and measure it by pacing.

Approximate the true north.

Select ruling points, and fix position of these by the intersection of bearings or rays.

Fill in the detail.

### *Road Reconnaissance and Report.*

(1) *Road*—breadth, surface, gradients, boundaries.

(2) Country through which road passes, shelter, &c.

(3) Camping grounds.

(4) Landmarks, bridges, fords, &c.

### *Rivers.*

Rate of current—

1 mile per hour = sluggish.

2 „ „ = swift.

3 „ „ = rapid.

4 „ „ = very rapid.

Mean velocity =  $\frac{4}{5}$  of the surface velocity.

### *To ascertain Yield of a Stream.*

Multiply breadth in feet by average depth in feet, multiply result by mean velocity in feet per minute.

The result multiplied by 9,000 gives the number of gallons of water yielded in 24 hours.

Active Service  
Pocket-book,  
pp. 127, 128.

### *To ascertain Breadth of a River.*

Select two points, A B, e.g., trees or fences, on either bank of the river, opposite to each other and close to the edge of water.

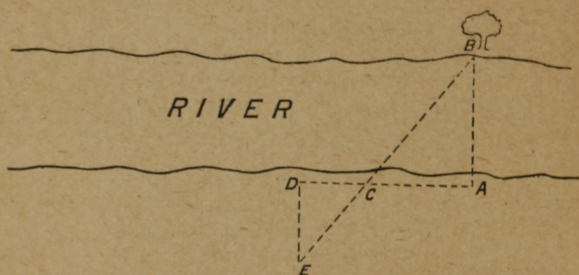


From A pace A C any convenient distance at right angles to A B.

Mark C with a post or stick placed upright.

Proceed in same line to D, making distance  $CD = \frac{1}{2} AC$ .

At D turn from the river and pace D E at right angles to A D. On reaching point E, which is in line with C and B, stop. Measure D E. D E is half the width of the river.



## SECTION XIX.

### MOBILIZATION.

(SEE REGULATIONS FOR MOBILIZATION.)

The process by which an armed force passes from a peace to a war footing.

"Place of mobilization."—The place where the mobilization of a unit is completed.

"Place of joining."—The place where regular reservists join the colours on mobilization, usually the nearest company headquarters.

"First day of mobilization."—The day following the order to mobilize.

R.A.M.C. units (except those of the Territorial Force) do not exist as such in peace time.

### Personnel.

Each company of the R.A.M.C. provides the personnel for certain units of the expeditionary

Regulations  
for Mobiliza-  
tion, para. 1.

Para. 3.

Para. 5.

Para. 4.

force. The N.C.O.s and men of the company are provided during peace time with cards showing how they are posted on mobilization being ordered.

White card for general duty section.

Blue „ „ clerical section.

Red „ „ nursing section.

Yellow „ „ cooking section.

These cards are always shown at kit inspections.

This personnel from the company is supplemented by reservists, special reservists, and infantry reservists. Civil surgeons would be specially engaged on mobilization.

Deficiencies in the numbers of N.C.O.s are made up by special promotions and appointments by O.I/c records.

### *Reservists.*

#### *(1) Regular Reservists—*

Section A.—Men in 1st year of reserve service (if accepted).

Draw 1s. per diem pay.

May be called up at any time.

Section B.—The section in which a soldier completes his period of service.

A soldier may pass from Section A to Section B, or direct to Section B from the Colours.

Draw 6d. per diem pay.

Only called up for active service.

Section D.—Composed of soldiers who re-engage for four years after completion of 12 years.

Draw 6d. per diem pay.

Only called up in national emergency when Section B is exhausted.

#### *(2) Special Reservists.*

“a.” Six months' initial training and subsequently 15 days' training every year.

Draw £3 per annum.



Pay of rank while training, and bounty of £1 on completion of training.

May be permitted to enlist in R.A.M.C.

"b." Volunteers of Territorial Force.

Draw £3 per annum.

(3) *Infantry Reservists.*

Regular reservists of infantry and R.G.A. transferred to R.A.M.C.

Initial training of three months.

Subsequent biennial training of 8 days.

Draw ordinary reserve pay, pay and corps pay of rank during training, and a gratuity of £1 on completion of training.

## MATERIAL.

### War Equipment.

(1) *Personal*—

This, with the exception of certain articles, such as brassards and first field dressings, is already in the possession of serving soldiers.

Para. 17.

The clothing and necessities of reservists are stored at the place of joining.

The special articles, such as brassards and first field dressings, are stored in the ordnance stores at the place of mobilization.

(2) *Regimental*—

(a) Vehicles, blankets, stretchers, harness, &c., stored in ordnance stores at the place of mobilization.

Para. 121.

(b) Medical and surgical equipment and medical comfort panniers, held in peace time in charge of the R.A.M.C. On mobilization this equipment is forwarded, without requisition, to the unit at place of mobilization.

Para. 120.

(c) Veterinary equipment, similarly held by A.V.C., and forwarded as under (b).

### *On Mobilization.*

Para. 128.

Officers on leave and soldiers on furlough rejoin at once.

## Duties.

### (1) *Officer i/c Records*—

Issues instructions for rejoining and railway war-rants to reservists. Para. 150.

Issues lists of promotions and appointments to complete establishments of units. Para. 183.

Informs Os.C. Companies as to number of reservists directed to join. Para. 177.

### (2) *O.C. Company, R.A.M.C.*—

#### (a) *Serving Soldiers*—

All ranks medically inspected. Para. 186.

Clothing and equipment inspected. Para. 190.

Surplus kit stored.

Accounts and documents dispatched to units. Para. 167.

Parties dispatched in accordance with local mobilization orders. Para. 191.

#### (b) *Reservists*—

Arranges for rations and accommodation.

Superficial medical examination. Paras. 157,

Forwards life, identity, and reserve certificates 189.

to Paymaster, No. 2, Aldershot.

Informs O.i/c records daily of any casualties. Paras. 194,

Instructs reservists to dispose of their plain 195.

clothes. Para. 160.

Clothes, equips, and dispatches to their units at Paras. 177,

the place of mobilization, telegraphing to 191.

O.C. unit the time of arrival of party, and

whether rationed for the day.

### (3) *O.C. Unit*—

Proceeds at once to place of mobilization.

Officer's field kit, 35 lb. (50 lb. for a C.O.).

Bullock trunk with 100 lb. may be left at base.

For list of articles, see F.S. Pocket-book, p. 177.

Takes over command of R.A.M.C. and A.S.C. personnel as they join. Paras. 144, 145.

Indents for rations if this has not already been done. Para. 203.

Inspects quarters and camping grounds, especially as regards conservancy arrangements.



Details military police.

Makes arrangements for officers' tents, messing, and servants.

Details a party of A.S.C. with line, gear, &c., to take over horses.

Paras. 137,  
217, 218.

Sends medals and wills of soldiers to O.I/c records.

Draws supplies from A.S.C. dépôt. (One day's preserved meat and biscuits, two days' groceries, one day's corn ration, one bale compressed forage per wagon.)

Emergency food (issued without indent from Supply Reserve Dépôt, Woolwich) is issued.

Para. 213.

Issues A.B. 64 (active service pay-book) to each N.C.O. and man; verifies entries on p. 3.

Draws and issues 1st field dressings, brassards, clasp-knives, waterproof sheets and blankets (stored at ordnance dépôt).

Para. 210.

Final medical examination of reservists; any found unfit should be dispatched to place of joining for disposal, and O.I/c records informed.

Paras. 220,  
221.

Inspects clothing, equipment, and identity discs.

Para. 71.

Draws equipment from ordnance store; if pressed for time the counting of the A.O.D. must be accepted.

Para. 212.

Sends A.F. D418 (separation allowance) to Paymaster paying reservists.

Para. 214.

Sends A.F. O1796 (allotment of pay) to Regimental Paymaster, No. 2, Aldershot.

Checks and completes A.F. Bro3 (active service casualty form) and B122 (field conduct sheet).

Para. 216.  
A.O. 102,  
1913.

Forwards regimental and company conduct sheets, duplicate attestations and medical history sheets to O.I/c Records, Aldershot. If the unit proceeds abroad these documents will then be transmitted to the A.G.'s office at the base—General Headquarters, 3rd Echelon.

Informs A.D. of M.S. of daily progress every evening.

Prior to embarkation examines the documents of reservists, and notes such as are qualified as cooks, nurses, &c.

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